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See Page 64.



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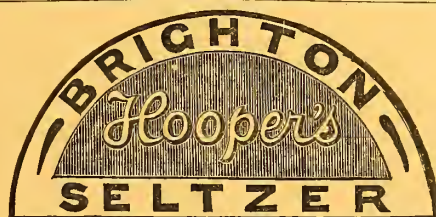
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ternals most in use, viz., Arnica
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towns in Ireland and Scotland,
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Bronze Medal, 1874.

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Medal of Superiority, 1877.

SILVER MEDAL,

Exposition Universelle,
Paris, 1878.

GRAND MEDAL AND
DIPLOMA,
Philadelphia, 1876.

CAUTION.

We must again caution the Trade against imitations of "Vaseline," made, apparently, by mixing Paraffin Oil with Paraffin Wax.

Every pharmacist knows that it is impossible to make a satisfactory homogeneous Ointment by mixing with a lard that is "grainy."

The paraffin imitations of Vaseline may be distinguished by their odour, taste, and by the grainy or crystalline structure which is very evident to the eye when compared with the jelly-like smoothness of true Vaseline.

To prevent adulteration, &c., we put it up, for the convenience of the Trade, in 1lb. and 5lb. Tins, with our name stamped thereon; and we beg that it may be ordered in our packages.

As an emollient, Vaseline is superior to any other substance yet discovered. Its marvellous healing and restoring qualities excel everything else, and it is rapidly taking its place on the toilet table to the exclusion of the various complexion powders, pomades, cosmetics, and other compounds. It will keep the skin clearer, softer, and smoother than any cosmetic ever invented, and will preserve the youthful beauty and freshness of the healthy complexion.

Endorsed by the entire Medical Press of England, France, Germany, America, &c. In general use in Hospitals, and recommended by the most distinguished Physicians, Surgeons, and Chemists throughout the world.

Pamphlets containing these editorials and recommendations post free.

We beg to call attention to the following Net Price List of our Vaseline Preparations:

REGISTERED	VASELINE FOR MEDICINAL USE	{	Bottles, in fancy card cases, 3 sizes, 8s., 16s., and 33s. per dozen; in boxes (wood) of 1 dozen and of $\frac{1}{2}$ dozen.
	POMADE VASELINE FOR THE HAIR		
	VASELINE COLD CREAM . . .	{	Glass Pots, 2 sizes, 8s. and 16s. per dozen; in boxes of 1 dozen and of $\frac{1}{2}$ dozen.
	VASELINE CAMPHOR ICE . . .		
	VASELINE TOILET SOAP . . .	{	Fancy Paper Boxes, 8s. per dozen; in boxes of 1 dozen.
	VETERINARY VASELINE . . .		
			{ 9s. per dozen Tablets, less 15 % discount; in boxes of 3 tablets.
			{ 1-lb. Tins, 24s. per dozen; in boxes of $\frac{1}{2}$ dozen.

For the convenience of Chemists in dispensing, "Vaseline" and "Veterinary Vaseline" are put up in 5-lb. Tins.

All the above articles can be obtained of Messrs. MAW, BARCLAY, NEWBERY, SANGER, EDWARDS, and all Wholesale Houses in London; also of T. W. HOLDSWORTH, PARTON & OSBORNE, and P. HARRIS & Co., Birmingham; REMINGTON & SONS, Bradford; FERRIS & Co., Bristol; CLARKE & McMULLAN, Belfast; GOULDING & Co., Cork; BOWERS BROS., Chester; STOKES & Co., JOHNSON & OLDFHAMS, THACKER & HOFFE, Dublin; MACKAY & Co., and DUNCAN, FLOCKHARDT & Co., Edinburgh; EVANS, GADD & Co., and HUNT & Co., Exeter; GLASGOW APOTHECARIES' Co., HATRICK & Co., NEW APOTHECARIES' Co., and BROWN BROS., Glasgow; S. L. FASSICK, Isle of Man; EVANS & Co., RAIMES & Co., CLAY & ABRAHAMS, J. THOMPSON, SYMES & Co., and THOMPSON & CAPPER, Liverpool; GOODALL, BACKHOUSE & Co., and HIRST, BROOKE & Co., Leeds; RICHARDSON & Co., Leicester; WOOLLEY, SONS & Co., and THOMPSON & CAPPER, Manchester; CLARKE, BLEASDALE & Co., and RAIMES & Co., York; C. H. TAYLOR, South Shields; BRADY & MARTIN, Newcastle-on-Tyne; and all Wholesale Houses in the United Kingdom.

The process by which Vaseline is made is protected by Letters Patent, and "Vaseline" is our registered Trade Mark. None genuine except in our Packages.

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Best
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Superior Steam-Refined

NORWEGIAN COD LIVER OIL.

MAWSON & SWAN, Importers, 11 & 15 Mosley St., NEWCASTLE-ON-TYNE.

N.B.—Thirty Barrels only in Stock, but more shortly to arrive.

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LENTILLA,

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FOOD.

An Adult's (not an Infant's) Food. The BEST DIET for Invalids.

(Excellent for Nursing Mothers; produces ample supply of good Milk.)

From J. CHANING-PEARCE, M.D.—"Brixton Rise, January 16, 1879.—'James's Lentilla Daily Food' is very NUTRITIOUS, easily DIGESTED, and has a SALUTARY EFFECT on the biliary secretions."

From Dr. FAIRBANK, Physician to H.R.H. Princess Christian.—"Windsor, December, 1878.—Easily digestible and highly nutritious. It makes excellent puddings and OMELETTEs."

From H. C. BARTLETT, Ph.D., F.C.S.—"Laboratory, 39 Duke Street, Grosvenor Square, November 26, 1878.—'James's Lentilla Daily Food' is composed of the most nutritious Farinas. Possesses special stomachic properties, which render it easy of assimilation, and considerably ENHANCE the dietetic value of its flesh-forming constituents."

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From W. ADAMS, Esq., F.R.C.S.—"London, 31st March, 1878.—More nutritious than any with which I am acquainted; forms, with milk, a perfect food for invalids and children, and all adults, as an evening meal."

Every medical man who has examined and tried it has pronounced it far superior to the Revalenta, or any other preparation of Lentils.

Retail of all best Chemists, in Canisters at 10d. and 1s. 6d.

Wholesale of JAMES & CO., Cardington Street, London, N.W., and all Wholesale Houses.

Agents wanted where there are none. Special and very effective advertising, and a good profit.

Pronounced by Dr. ATTFIELD, Professor of Practical Chemistry to the Pharmaceutical Society of Great Britain, to be "of unusual purity," distinguished for "absence of all impurities, and presence of all good qualities." (Certificate attached to each Invoice.)

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24-gallon Tin-lined Barrels:
One Barrel, carriage paid ... 6/- per gallon.
Two Barrels, carriage paid ... 5/9 per gallon.
Five Barrels, carriage paid ... 5/6 per gallon.

REDUCTION IN PRICE.

BY HER MAJESTY'S



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Arnold & Sons' Pocket Clinical Thermometer.

Suggested by PROFESSOR BROWN.

"Of all the pocket companions now essential to a practitioner, none is more indispensable than a good thermometer. It is a gratifying circumstance to find instrument makers taking pains to make the instrument more useful by making it more reliable and more easy of use. The Messrs. ARNOLD & SONS have attempted to make the scale more legible by colouring it red and indelibly, and the attempt has been successful. The instruments also have been carefully tested as to accuracy."

Vide MEDICAL TIMES AND GAZETTE (Second Notice) February 27, 1875.

Vide BRITISH MEDICAL JOURNAL (Second Notice) May 15, 1874.

Vide LANCET, May 10, 1873.

Vide BRITISH MEDICAL JOURNAL, June 7, 1873.

Vide MEDICAL TIMES AND GAZETTE, May 24, 1873.

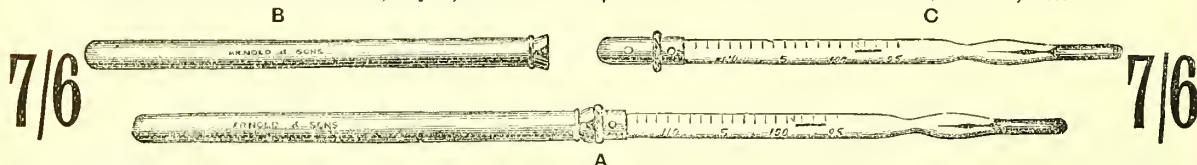
Vide MEDICAL RECORD, June 25, 1873.

Vide STUDENTS' JOURNAL, April 24, 1875.

Vide MEDICAL PRESS AND CIRCULAR, June 4, 1873.

Vide STUDENTS' JOURNAL, June 7, 1873.

Vide MEDICAL RECORD, March 17, 1875.



The Wood-cut A shows the Thermometer with case attached; C, the instrument without the case; and B, the Thermometer case.

PRICES—Patent Pocket Clinical Thermometer with Bayonet Joint, in Aluminium Case (No. 3) 7s. 6d.

Ditto, in German Silver Case (No. 2) 10s. 6d.

Ditto, in Sterling Silver Case (Hall marked) (No. 1) 12s. 6d.

If with Centigrade Scale as well as Fahrenheit, 2s. 6d. extra

and 2 have the Coloured Scale, which renders the reading more intelligible, and likewise the constriction, to prevent the possibility of the Index descending into the bulb. Nos. 1 and 2 are likewise fitted with the magnified or indestructible Index (if preferred) at the same prices.

ARNOLD & SONS guarantee the accuracy of every Thermometer, which is tested by a New Apparatus verified at Kew.

Sole Manufacturers and Patentees—ARNOLD & SONS, Instrument Makers,

By Appointment to Her Majesty's Government, St. Bartholomew's Hospital, & the Principal Provincial & Colonial Hospitals, &c.

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MALTINE.

(EXTRACT OF MALTED BARLEY, WHEAT, AND OATS.)

The Original and Only Preparation composed of these Three Cereals.

MALTINE is a highly concentrated extract of malted Barley, malted Wheat, and malted Oats, containing, undiminished and unimpaired, all the nutritious principles that can be extracted from these cereals. By the most carefully conducted scientific process we are enabled to offer a perfect article, possessing five to ten times the beneficial and nutritive merit of any alcoholic or fermented Extract of Malt.

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Professor of Chemistry and Toxicology, Bellevue Hospital Medical College, and Professor of Chemistry and Physics, College of the City of New York. New York: April 17th, 1879.

THIS IS TO CERTIFY that I have visited the Works at Creskill, on the Hudson, where MALTINE is prepared; that I spent portions of two days in witnessing the Chemical Processes for making the same; that the operation is effective in extracting the whole of the nutritive ingredients of the grains of Malted Barley, Wheat, and Oats, with but a slight residue; that it is the most complete method yet devised, with which I am acquainted, for accomplishing this object; that it presents a combination of the valuable constituents of the most renowned cereals, each of which long experience has demonstrated to possess characteristic properties; that it is preserved from undergoing any Chemical change without the use of alcohol; that I was particularly impressed with the thorough cleanliness, as well as completeness, of the apparatus employed for accomplishing the desired result—from the first treatment of the grains to the concentration of the liquid products by evaporation *in vacuo*. From a Chemical and Medical standpoint, I cannot commend too highly to my professional brethren this unique and compact variety of vegetable diet, nutritive to every tissue of the body, from bone to brain, and superior in its results to any preparation of any one variety of grain.

MALTINE AND ITS COMPOUNDS

Can undoubtedly be used with greater success than any other remedy now known in cases of General and Nervous Debility, Indigestion, Imperfect Nutrition, and Deficient Lactation; Pulmonary Affections, such as Phthisis, Coughs, Colds, Hoarseness, Irritation of the Mucous Membranes, and Difficult Expectoration; Cholera Infantum and Wasting Diseases of Children and Adults; Convalescence from Fevers, and whenever it is necessary to increase the vital forces and build up the system.

MALTINE and COMPOUNDS, in bottles containing 8 and 16 fluid ounces, equal to 12 and 24 ounces by weight, 2s. 9d. and 4s. 6d. The Compounds, 3s. 6d. and 6s. 6d. Also Winchester Quarts, 120 ounces by weight.

MALTINE, Ferrated.

MALTINE with Alteratives.

MALTINE with Beef and Iron.

MALTINE with Cod-Liver Oil.

MALTINE with Hypophosphites.

MALTO-YERBINE.

MALTINE with Phos., Iron, Quinia,

and Strychnia.

MALTINE with Pepsine & Pancreatine.

MALTINE WINE.

MALTINE WINE with Pepsine and

Pancreatine.

THE MALTINE MANUFACTURING COMPANY (Limited),

Great Russell Street Buildings (Corner of Gt. Russell and Charlotte Streets), London.

IMPORTANT NOTICE TO THE TRADE,

APRIL, 1879.

PRIZE MEDAL,



LONDON, 1862.

PRIZE MEDAL,



PHILADELPHIA, 1876.



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			per lb.				per lb.				per lb.
Ext. Cassie	9/6	Ext. Rézédá	9/6	Ext. Tubereuse	9/6
„ Jasmin	9/6	„ Rondeletia	8/-	„ Violet	15/-
„ Jonquil	...	...	9/6	„ Rose	...	...	9/6	„ Verbena	...	...	8/-
„ Lily of the Valley	...	...	9/6	„ Rose Geranium	...	...	9/6	„ White Rose	...	...	10/6
„ Magnolia...	...	...	9/6	„ Spring Flowers	...	...	9/6	„ White Lilac	...	...	9/6
„ Orange Flower	...	...	9/6	„ Stephanotis	...	...	9/6	„ Wood Violet	...	...	13/6
„ Patchouli	...	...	9/6	„ Sweet Briar	...	...	9/6	„ Wild Rose	...	...	9/6
„ Queen of the Alps	...	...	9/6	„ Tea Rose...	...	...	9/6	„ Ylang Ylang	...	...	9/6

ARE NOW REDUCED IN PRICE, AS ABOVE.

These Extracts have always had the highest reputation; they are all of our own manufacture, are guaranteed **pure** and of **triple strength**, and will compare favourably with any in the trade.

N.B.—Owing to the failure of the **VIOLET** crop, however, this Extract is advanced in price, and will probably go higher still. Purchasers are warned against the spurious Ext. Violets already in the market.

FAMILY BROWN WINDSOR SOAP,

At 60/- per cwt., Genuine, and sweetly perfumed.

This Soap is recommended to the Trade as the best value that can be obtained. Embossed Squares, 6 to lb., and in 14-lb. Boxes.

CASH DISCOUNT, 10 PER CENT.

R. LOW, SON & HAYDON,
 Perfumers, Toilet Soap Makers, and Brush Manufacturers,
330 STRAND (OPPOSITE
SOMERSET HOUSE) **LONDON.**

COBDEN'S QUININE AND PHOSPHORUS PILLS.

THE NEW TONIC, 2/9 and 4/6.

PHOSPHORUS is the life-giving element in the blood, and the thought-giving power of the brain. In conjunction with Quinine it is one of the most powerful curative agents known. All nervous diseases mean a want of Phosphorus in the brain and nerve centres, and to cure them is to reintroduce the deficient property.

COBDEN'S Pills (Quinine & Phosphorus) have been invented to accomplish this end, and there are now many thousands who can testify to the success of this mode of treatment. If your brain is overworked, your nerves unstrung, if you suffer from nervous or general debility, or feel a want of vigour and vitality, try a course of

COBDEN'S Pills (Quinine & Phosphorus). Mr. G. OSBORNE, *Coming Events Office*, Fleet Street, London, writes, October 31, 1877:—"Having taken 'Cobden's Pills' for a short time, I find myself greatly improved in health. They have had a wonderful effect on my nerves."

COBDEN'S Pills (Quinine & Phosphorus). Produce appetite and a healthy digestion. Renew the strength. Renovate the failing power. Remove sensations of fatigue. Produce sensations of exhilaration. Cause no after-depression. Increase the capacity for mental and physical exertion. Produce cheerfulness. Give a coolness and dexterity to the mind. Confer freshness, originality, and energy on the mental processes. Produce sensations of increased muscular power. Stimulate the nerve power.

COBDEN'S Pills (Quinine & Phosphorus). Mr. HOWARD PAUL, 271 Strand, London, writes, October 3, 1877:—"I beg to testify to the efficacy of 'Cobden's Pills.' They are an excellent tonic and nerve stimulant, and most useful in relieving the lassitude that frequently follows extra mental or bodily exertion. I have been considerably benefited in my general health by their use, and recommend them to my friends as opportunities occur."

COBDEN'S Pills (Quinine & Phosphorus). Mr. W. RANDALL, of Sanger's Amphitheatre, writes, October 8, 1877:—"I have derived immense benefit from taking 'Cobden's Pills.' For a long period I had been a martyr to nervous debility, and the existence I endured was sometimes unbearable. After taking them three weeks I am a new man. I eat well and sleep well, and giddiness, timidity, and lassitude have entirely gone."

COBDEN'S Pills (Quinine & Phosphorus). Are invaluable as a stimulant or brain tonic. They act, not as a stimulant only, but as a substitute, to some extent, for rest. A couple taken an hour or so before cessation of the day's work are found to remove sensations of fatigue, to give a clearness and dexterity to the mind, to produce appetite and a healthy digestion, and to conduce subsequently to the quiet sleep of which overwork so constantly deprives those whose occupation is mental.

COBDEN'S Pills (Quinine & Phosphorus) Mr. R. J. HAMILTON, 7 Salford Terrace, Tonbridge, writes, January 29, 1878:—"I can testify to their ('Cobden's Pills') being most valuable in relieving severe pains in the head, as also for Neuralgia."

COBDEN'S Pills (Quinine & Phosphorus). They act directly on the blood, vitalising and enriching it to a surprising degree, building up the system, and throwing off the germs of disease. They thoroughly recruit the general bodily health, and restore the nervous system to a proper healthy condition, no matter from what cause impaired.

COBDEN'S Pills (Quinine & Phosphorus). Should be adopted by all abstainers as having a better and more lasting effect as a stimulant than alcohol, without possessing any of its terrible consequences. They have a certain and speedy effect in repairing the partial dilapidations Time or Intemperance may have effected on the system. They fortify it against contagion, and infuse health and vigour to resist disease.

COBDEN'S Pills (Quinine and Phosphorus). The Rev. JOHN SHEWARD, writes from Milton, Sittingbourne, Kent, October 29, 1878:—"I am happy to inform you of the great benefit I have derived from your 'Cobden's Quinine and Phosphorus Pills.' I have been a sufferer for many months from extreme diarrhoea, great weakness, and severe mental depression; my nerves were so shattered that I dreaded the simplest duties, and lost all energy and pleasure in the performance of them. The despondency I endured became almost unbearable. I tried so many things without avail, that I began to fear my complaint would refuse to yield to any treatment. I saw your Pills advertised, but my little faith prevented me sending for them until the 7th inst., when I determined to try a 2s. 9d. box. The only thing that I now regret is that I did not send for them sooner. I have been taking them just over a fortnight, and the change in my health for the better is very marked. I have lost that horrible depression, my nerves are much stronger, and my general health very much improved. I cannot express how truly thankful I feel for the remarkable and pleasing change. I shall continue to take the Pills, and always resort to them on the first intimation of failing health."

COBDEN'S Pills (Quinine & Phosphorus). Vitalise, purify, and enrich the blood. Regulate the supply of blood to diseased nerves. Nourish diseased spinal nerves. Act as a brain tonic. Act as a general tonic. Are infallible in Neuralgia. Invigorate the whole system. Are the best tonic. They afford a ready mode of gaining strength. Are pre-eminent as a means of gaining appetite. Particularly useful for delicate females. Powerfully assist the digestive organs. Throw off germs of all diseases, and thoroughly recruit the general bodily health.

COBDEN'S Pills (Quinine & Phosphorus). May be considered a specific in Neuralgia. Their remarkably rapid and lasting effects in this complaint are perhaps their most striking therapeutical power. In this as in that of some other diseases, they exert a double power; in some instances merely regulating the blood supply to the affected nerves—in others acting in addition as a tonic or nourisher of the diseased spinal nerves, or of the affected nerves themselves. Three doses will invariably cure.

COBDEN'S Pills (Quinine & Phosphorus) increase the capacity for mental and physical exertion. If the patient has the dose while in a state of fatigue, then he feels his strength renewed; if while in a state of despondency he takes a more cheerful view of things. A state of depression does not ensue; therefore, whilst acting as a stimulant they differ from all other stimulants, as they leave no distressing after effects.

COBDEN'S Pills (Quinine & Phosphorus). Mr. H. COLEBY, Schoolmaster, Nutley School, Uckfield, writes, October 25, 1877:—"I can speak most highly of your 'Cobden's Pills' as a cure for Neuralgia and severe pains in the head. My sister suffered much for months, without finding any relief from other advertised remedies, till she tried a few doses of the Pills, which completely cured her. This was in May last, and she has not had a return of the pain. I have recommended them to several of my friends, and shall continue to do so, as I am thoroughly convinced of their therapeutical value."

COBDEN'S Pills (Quinine & Phosphorus).—Mr. RICHARD ROBINSON, Schoolmaster, All Saints' School, Crawley Down, Crawley, writes, November 19, 1877:—"I and my wife took 'Cobden's Pills,' and have derived considerable benefit from them—especially me. My appetite is increased, and I work better, sleep better, feel more 'a master' than I have for some years, and I am very pleased with and thankful for the results."

COBDEN'S Pills (Quinine & Phosphorus). Assist the digestive juices to convert what we eat and drink into healthy matter, so as to afford proper nourishment to the body. Are most useful in allaying the nervous, irritable, and weakly state occasioned by over brainwork, mental anxiety, loss of rest, violent shocks, fast living, overtaxing the powers, or from any of the causes combined under the head of "indiscretions of youth." They are easy to take, being very small and perfectly tasteless. They are prepared with the greatest care by duly qualified Chemists, with improved machinery and all the modern appliances for producing perfect admixture.

COBDEN'S Pills (Quinine & Phosphorus). Are food for the brain, blood, and nerves. Are a specific in Ague. Are infallible for all Low Fevers. Are a preventative of Contagion. Are very useful in Rheumatism. Are given with success in Gout. Are the best remedy for failing powers. They cure depression of spirits. Cure pains in the back. Cure Blood Poisons. Cure Melancholia. Cure Skin Eruptions. Cure Languidness. Cure Impotence.

SPECIAL NOTICE.

AGENTS WANTED.

Arrangements will be made with gentlemen undertaking the Agency and ordering not less than £5 worth for a local house to house distribution of handbills bearing their names and addresses. Special arrangements as to advertising the names of agents abroad. Handbills in any language.

All Wholesale Houses, or of the Sole Proprietors,

THE SUSSEX DRUG COMPANY, 135 Queen's Road, Brighton.

OZOKERINE

(REGISTERED).

A new preparation PERFECT as a BASIS for OINTMENTS, of admirable consistency, bland, emollient, antiseptic, and healing.

CANNOT BECOME RANCID.

"Moderate in price, and deserving a careful trial."—BRITISH MEDICAL JOURNAL.

"A valuable and useful substance, and will in all probability be very largely used."—MEDICAL TIMES AND GAZETTE.

"Will take a high position among our other pharmaceutical preparations."—MEDICAL PRESS AND CIRCULAR.

"Likely to prove useful as a dressing for wounds and excoriations."—PRACTITIONER.

OZOKERINE is a clear, pale yellow, very slightly fluorescent body, composed of hydrocarbons akin to Paraffine in their chemical characters. It is produced from Ozokerit, or Earth Wax, by the separation of lighter and denser hydrocarbons, and subsequent purification by processes which remove smell and taste, and yield it in the pleasant form which has already gained for it a preference before other similar bodies.

OZOKERINE has been used with remarkable success as a simple *dressing for wounds*, its mild and healing properties rendering it peculiarly grateful to the patient.

OZOKERINE is unsurpassed as an *unguent basis*; *unchangeable* in itself, except by the action of the *most powerful chemical agents*, it preserves other bodies with which it may be incorporated from all tendencies to decomposition. The *superiority of Ozokerine to lard* in this respect *cannot be over-estimated*.

OZOKERINE, in addition to the above advantages, possesses that of being *moderate in price*, which marks it out as a preparation destined to supersede all other articles hitherto used for similar purposes.

Each Tin is stamped on the lid with the words "FIELD'S OZOKERINE, REGISTERED."

MADE ONLY BY

J. C. AND J. FIELD.

Sole Agents: CORBYN, STACEY & CO., WHOLESALE AND EXPORT DRUGGISTS,
300 HIGH HOLBORN, LONDON.

Highest Prize Awarded by the Paris Exposition, 1878.

MORTIMER'S BROMO PAPER.

A Perfectly Pure Article for the Water Closet.

BOXES containing	500 Sheets	...	...	...	...	...	per dozen	12/6
"	1,000 "	...	...	...	...	...	"	18/-
CASES	50 Packets	...	...	...	...	...	(500 Sheets)	50/-
"	" "	...	...	...	...	...	(1,000 "	72/-

10 per cent. Invoice, and 5 per cent. Cash Monthly.

SPECIAL QUOTATIONS TO LARGE BUYERS.

Sole Wholesale Agents for the United Kingdom and Colonies,

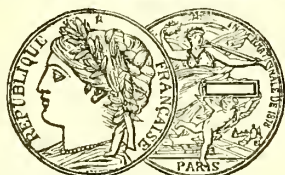
S. MAW, SON & THOMPSON, LONDON.

THE "PERFECTED" COD LIVER OIL

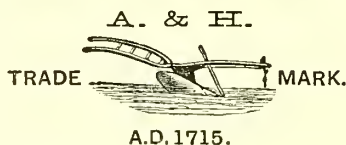
(Registered).

SOLE MANUFACTURERS,

ALLEN & HANBURY'S.



SILVER MEDAL, PARIS, 1878,
for A. & H.s' COD LIVER OIL.



PHILADELPHIA, 1876,
for A. & H.s' COD LIVER OIL.

This COD LIVER OIL is prepared by an altogether new and special process.

The following advantages are claimed for it, viz., that—

It is free from nauseous taste and smell;

It does not produce offensive eructations or sickness;

It is consequently digested without inconvenience, and can be taken by many who cannot bear ordinary Cod Liver Oil, even of the finest quality;

It presents the medicinal and nutritive qualities of the remedy in the highest degree of excellence.

In order to appreciate these advantages, THE "PERFECTED" COD LIVER OIL *must be taken*.

ALLEN & HANBURY'S have manufactured COD LIVER OIL on a large scale for more than thirty years, first in their Laboratory in London, and subsequently, by some of the same trained hands, in Newfoundland, and in Norway, where for nearly fifteen years they have had a factory, and for twelve of which they were the only English makers.

During all this period, therefore, A. & H. have been able to offer the fullest guarantee of the Genuineness and Purity of their COD LIVER OIL, and of all the excellence which intelligent experience and scrupulous care could insure. And for this OIL were awarded the only Medal of the British Section of the Philadelphia Exhibition, and a Silver Medal at Paris.

A recent improvement, the result of numerous experiments, now enables them to go a step farther, and to offer their OIL so far freed from the usual repulsive flavour that it becomes almost as palatable as Salad Oil, and excites none of the nausea or unpleasant eructations which are often experienced after taking even the very best kinds of the ordinary Oil.

Thus the chief difficulties experienced in the use of this invaluable remedy, for which there is no equivalent, are removed. Its medicinal and nutritive properties are wholly unimpaired, and A. & H. have designated it THE "PERFECTED" COD LIVER OIL, because they believe it presents all the valuable qualities of their pure COD LIVER OIL in the best condition attainable.

A. & H. offer it under the conviction that it will prove a boon to all who have occasion to take Cod Liver Oil, and render it available to very many who hitherto have been unable to bear it.

Sold ONLY in Imperial Pints	- - - -	4 9.	Per dozen, 44/-	} Each Bottle bears the Trade Mark (a Plough) and the Signature of the Manufacturers.
Half-pints	- - -	2/6.	" 23/-	
Quarter-pints	- -	1/4.	" 12/-	

TO BE HAD OF ALL PATENT MEDICINE HOUSES, AND OF THE MAKERS.

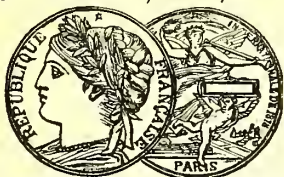
N.B.—ALLEN & HANBURY'S well known COD LIVER OIL supplied in bulk and otherwise as heretofore.

NEW SHOW CARDS AND HANDBILLS.

For general list of Drugs and Chemicals, see ALLEN & HANBURY'S Price List, posted free on application.

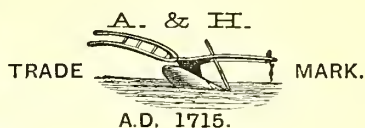
ALLEN & HANBURY'S,
Plough Court, 37 Lombard Street, London, E.C.

SILVER MEDAL, PARIS, 1878.



ALLEN & HANBURY'S JUJUBES

PREPARED BY PATENT PROCESS.



PREPARED BY PATENT PROCESS.

BLACK CURRANT
GLYCERINE
LICHEN
LIQUORICE
MAGNUM BONUM
PECTORALE
PINE
RASPBERRY
ROSE
TAMARIND
VOICE
DELECTABLE
EXTRACT OF MALT
VIOLET

JUJUBES,
2/-
PER LB.,
or in tin
boxes.

2/4
PER LB.

1 lb.
size.
1/-
size.
6d.
size.

Per doz. Per doz. Per doz.

30/- 8/- 4/-

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All the above tins are neatly wrapped ready for sale. The One Pound Tins are returnable at 6/- per doz.

PASTILLES,
2/2
PER LB.,
or in tin
boxes.

2/4
PER LB.

1 lb.
size.
1/-
size.
6d.
size.

Per doz. Per doz. Per doz.

32/- 8/6 4/4

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See special notice below

GUIMAUVE, cut into Cubes,
unless ordered in sheet
GUIMAUVE PASTILLES
GUIMAUVE SHEET
ANISEED LIQUORICE
JUJUBES

2/6
PER LB.

2/-

2/-
PER LB.

36/- 8/- not supplied

30/- 8/- 4/-

PECTORAL FRUIT PASTILLES.

(Registered.)

An efficacious bronchial and
pulmonic Jujube of an
agreeable flavour.

Sold only in round boxes, to retail at
1s. 9d. each, 16s. per dozen.

GUIMAUVE PASTILLES (Crystallized).....2/6 per lb. } The two can be
" (Rose)2/6 per lb. } had mixed.
CRYSTALLIZED FRUIT PASTILLES2/- per lb.
CRYSTALLIZED VOICE JUJUBES2/- per lb.

A sample of any of the above Jujubes, &c., sent free by post if desired.

SUPERIOR UPRIGHT SHOW CASES.

Frames Fitted with Glass Shelves, Silvered-glass Backs, and Lettered in Gold; with three Glass Dishes to display three kinds of Jujubes or Pastilles. Price 42/- each. Size, 21 in. high, 10 in. broad, and 8 in. deep.

SHOW CARDS AND HANDBILLS ON APPLICATION.

PURE EXTRACT OF MALT.

In addition to the highly nutritive properties of EXTRACT OF MALT, it promotes, when properly made, the solution and digestion of farinaceous foods. This result depends on the activity of a peculiar substance called *Diasase*, the presence of which, uninjured, in this Extract is secured by a special process and evaporation *in vacuo*. DOSE.—From a dessertspoonful to a tablespoonful in water, wine, or milk, with or immediately after meals.

Dissolved in either of the above, EXTRACT OF MALT forms also an excellent vehicle for taking COD LIVER OIL.

Note.—This EXTRACT is entirely free from alcohol.

Price in bulk.....1s. 4d. per pound.

In 12-oz. Wide-mouth Bottles, to Retail at 2s. each 16s. per dozen.

FRY'S MALTED CHOCOLATE PASTE

(PATENT)

Is a combination of ALLEN & HANBURY'S EXTRACT OF MALT with superior PASTE CHOCOLATE, affording a delicious beverage. The Extract may be most agreeably taken in this form.

Sold in Tins, to Retail at 1s. each9s. per dozen.

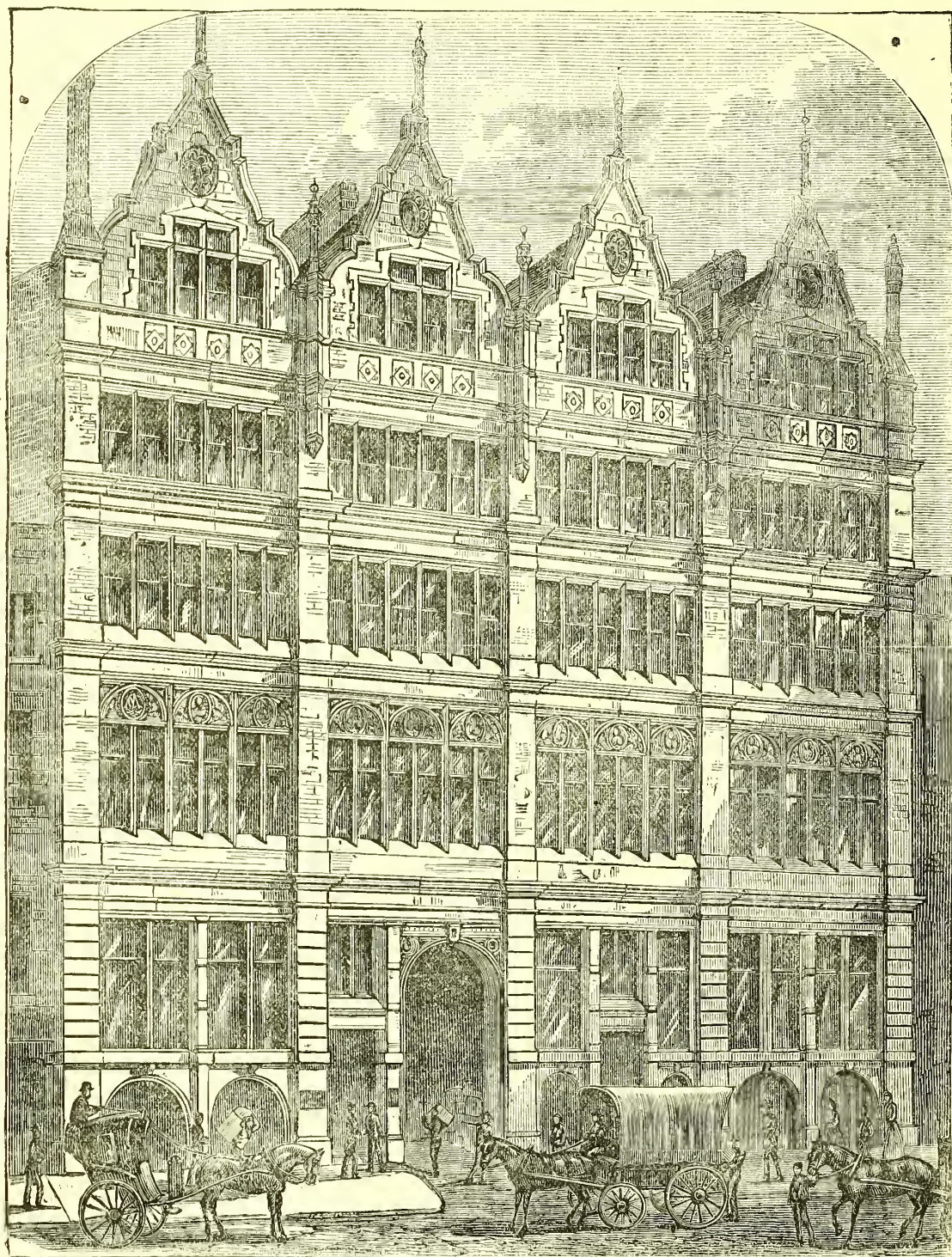
Ditto ditto 2s. each 18s. per dozen.

HANDBILLS AND SAMPLES FREE ON APPLICATION.

ALLEN & HANBURY'S,

WHOLESALE DRUGGISTS, MANUFACTURERS OF PHARMACEUTICAL PREPARATIONS, &C.,
PLOUGH COURT, 37 LOMBARD STREET, LONDON, E.C.

General List of Drugs, Chemicals, &c., posted free on application.



NEW FRONTAGE TO THE PREMISES OF
S. MAW, SON & THOMPSON,
ALDERSGATE STREET, LONDON.

S. MAW. SON & THOMPSON'S
NEW
SHOW ROOMS
ARE NOW OPEN,
CONTAINING COMPLETE SAMPLES OF ALL KINDS OF
DRUGGISTS' SUNDRIES,
SURGEONS' INSTRUMENTS, &c.

SURGEONS' INSTRUMENTS, ETC. - - - GROUND FLOOR.
DRUGGISTS' SUNDRIES, ETC. - - - FIRST FLOOR.
SPONGE ROOM - - - - - THIRD FLOOR.

Open from 9 a.m. to 6 p.m. A Visit is Solicited.

7 TO 12 ALDERSGATE STREET, LONDON.

"YOU DIRTY BOY!"

BY

GIOVANNI FOCARDI.



OF the many thousands of varied and beautiful exhibits at the Paris Exhibition nothing has proved so attractive or is so well remembered as this wonderfully realistic Statuette, well named in the pages of "Punch" as "*a souvenir of 1878*," and it will always be associated with this the greatest of all International Exhibitions as the "*pièce de résistance*" —the one thing universally known and admired. There is always some such remembrances of each Exhibition, from 1851, with its "Happy Boy and Unhappy Boy," and 1862 with its "Reading Girl," to this present instance, but in no former case has so extensive a popularity been achieved.

The experience it delineates is so common to us all, and the work of the sculptor so thoroughly true to nature, that it at once appeals to the youngest as well as the oldest amongst us. On its pedestal in Paris it was from morning to night surrounded by a crowd representing the people of every nationality, the expression in every face testifying to the skill of the sculptor and the irresistible humour of his subject.

It is now well known that this Statuette was a commission in the marble from A. & F. PEARS, Soap Makers to H.R.H. the Prince of Wales, to Signor Focardi, at a cost of £500, for the adornment of their Warehouse, and the Proprietors, at the request of many Connoisseurs and admirers of Art, have caused reproductions to be made in Terra

Cotta of about the size of the original marble, which they now offer at the prices annexed. As an attraction for the Wholesale or Retail Warehouse in any business it has never been equalled, for, as Mr. George Augustus Sala has said of it, it arrests the attention of "old and young, gentle and simple"; and it may be safely stated that, displayed as an advertisement and means to popularity, it is the cheapest ever offered, for an expenditure of ten times the amount on newspaper or other advertisement in the public press would fail to produce an equal notoriety in any city or town of the world. Annexed are a few extracts from among hundreds of criticisms.

FROM TRADE LETTERS.

The Broadway, Tunbridge Wells.

The Statuette has been a brilliant advertisement: my Pharmacy is visited by every one curious to see the "DIRTY BOY." The local press have given it a most flattering notice.

Yours faithfully,

GEORGE CHEVERTON.

Cooper's Effervescent Lozenge Warehouse, Oxford Street, London, W.

"YOU DIRTY BOY" is a never-ending amusement: every passer stops to smile.

W. T. COOPER.

"THE DIRTY BOY" is the attraction of the town. It is worth £20 to me as an advertisement alone.

F. FOSTER, Druggist, Scarboro'.

Trade Price of Terra Cotta Reproductions, delivered in London.

£6 6s. net.	{	Height of	Size of its base,	
		the Figure.	depth.	width.
		25 in.	17½ in.	13½ in.

A. & F. PEARS,

SOAP MAKERS TO H.R.H.



THE PRINCE OF WALES,

BY APPOINTMENT,

91 GREAT RUSSELL STREET, LONDON, W.C.

JUDSON'S SIXPENNY "VIOLET DYE,"

Used "Unmixed," will give off 50 Good Copies from the CHROMOGRAPH or from any of the various MULTIPLE WRITERS now so popular.

JUDSON'S "DUPLICATE" INK,

A Special Article, will make from 100 to 150 Copies.

Price, in Glass Stoppered Bottles, 8/- per dozen, Carded.

DANIEL JUDSON & SON supply the

PATENT "CHROMOGRAPH,"

Octavo Size, 9/- each, Net.

JUDSON'S

77 SOUTHWARK ST.,
LONDON, S.E.

Write for Detailed Price Lists.

GOLD 1/6 AND 3/6 { Equal to 4
at 1/6
PAINT 12s. and 28s. per doz.

"RELIEVE" WITH ARTISTS' BLACK.

For Re-Gilding Picture and Glass
Frames.

TESTIMONIAL.

"May 7, 1879.

"I was in London during the Easter holidays, and saw several specimens of gilding done by your GOLD PAINT, and was advised by my friends to apply to you for an agency for the sale of the same in my native town. I purchased two bottles, have tried them, and found them to be everything I could desire. It is easy to use, any child might put it on the frames, and the effect is truly wonderful. I could not have believed the efficacy of the preparation from description, but, having fairly tried it, I must pronounce it the best of the kind I have ever seen. "T. T."

ARTISTS' OR EBONY ENAMEL
8s. per doz. **BLACK** 1s.

A GOOD CONTRAST TO GOLD PAINT.

SOLUBLE 6d. 3d.
GLUE AND **1d.**

EBONISED
WOOD
CASE,
with slid-
ing Glass
Top, sur-
mounted
by
Framed
is
supplied
to the
Trade at
12/-,
containing
3 dozen
Capsuled
Bottles.
6d., 1/2 doz. on Card, 4s. doz.
3d., 1 doz. on Card, 2s. doz.
1d., 3 doz. on Card, 8s. gross.

GOLD AND SILVER INK 6d.

For Decorative Writing.
Truly "The Lady's Ink"!
Elegant Effects.
1 doz., 4s.; 3 doz. Cases, 12s.

EVANS, SONS & CO.,

56 HANOVER STREET, LIVERPOOL;

H. SUGDEN EVANS & CO.,
Montreal, Canada.

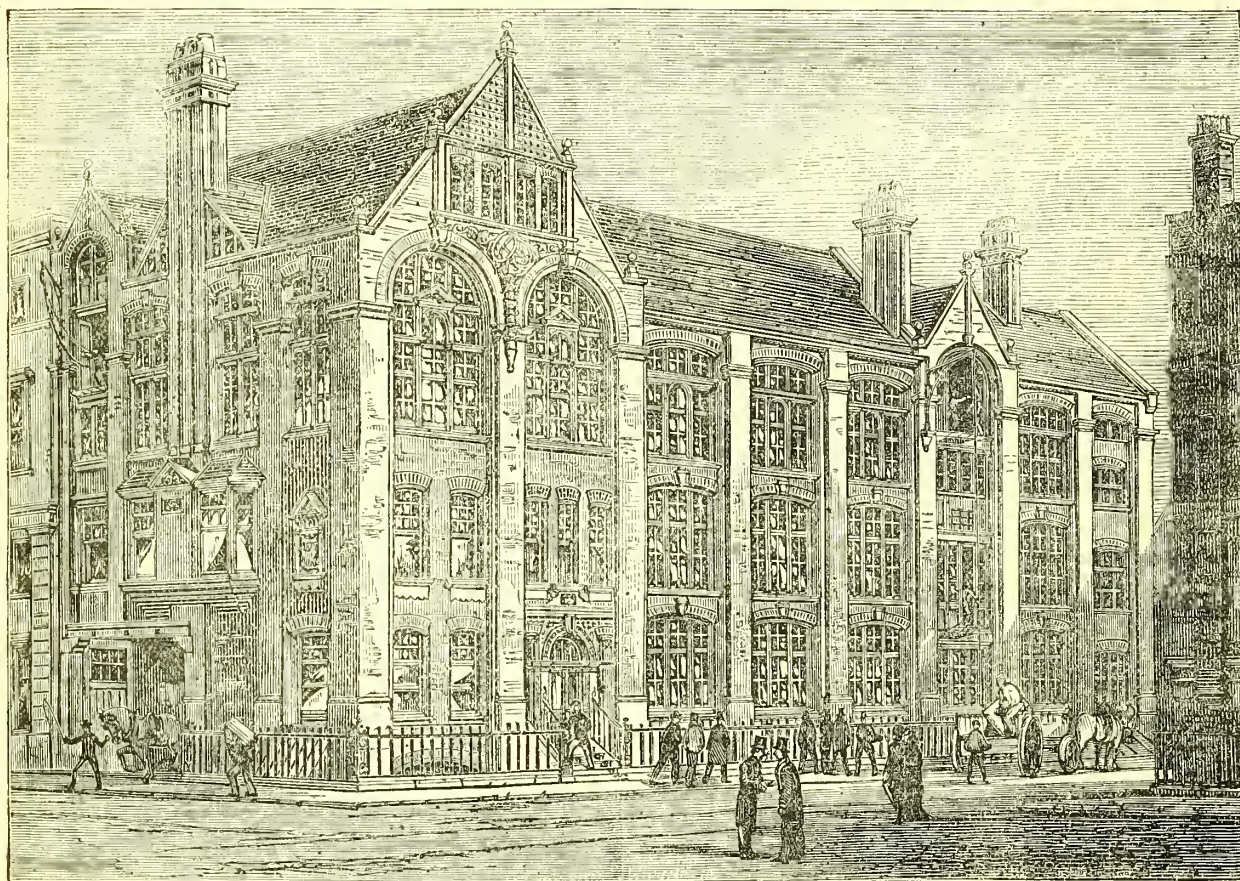


Paris Agency,
20 RUE J. J. ROUSSEAU.

EVANS, LESCHER & WEBB,

60 BARTHOLOMEW CLOSE, LONDON;

WHOLESALE & EXPORT DRUGGISTS.



NEW PREMISES AT 60 BARTHOLOMEW CLOSE, LONDON.

EVANS, LESCHER & WEBB have returned to their premises at 60 Bartholomew Close, London, which have been rebuilt, where they request that all orders and letters be addressed. The above represent their New Buildings, which are light and commodious, and occupy nearly 9,000 square feet. These Warehouses have very extensive cellarage, steam power for lifts, cranes, &c.; and the various departments, comprising over 36,000 square feet, have been provided with every modern improvement, so as to execute orders of any magnitude in a few days' time.

ILLUSTRATED EXPORT LISTS

(About 150 pages each), containing Prices of Drugs, Chemicals, Pharmaceutical Preparations, Druggists' Sundries, and Patent Medicines, &c., are sent post free to any part of the World on application (ENGLISH, in January and July; SPANISH, in April and October).

THE ABOVE LISTS OFFER UNUSUAL ADVANTAGES AS A MEDIUM FOR ADVERTISEMENTS.

Makers of Proprietary Medicines, Perfumers, &c., by advertising in same, will have their specialties brought prominently under the notice of dealers in all parts of the world. Terms for advertising (which are strictly moderate) may be obtained by applying to Messrs. EVANS, SONS & Co., 56 Hanover Street, Liverpool. All Advertisements translated into Spanish free of charge.

FELT CHEST PROTECTORS.

All Scarlet, or Assorted Scarlet and White.

	No. 1.	No. 2.	No. 3.	No. 4.	No. 5.
SINGLE ...	7s. 6d.	9s. 6d.	11s. 6d.	14s.	20s. per doz.
DOUBLE ...	17s.	22s. 6d.	28s.	34s.	45s. ,,

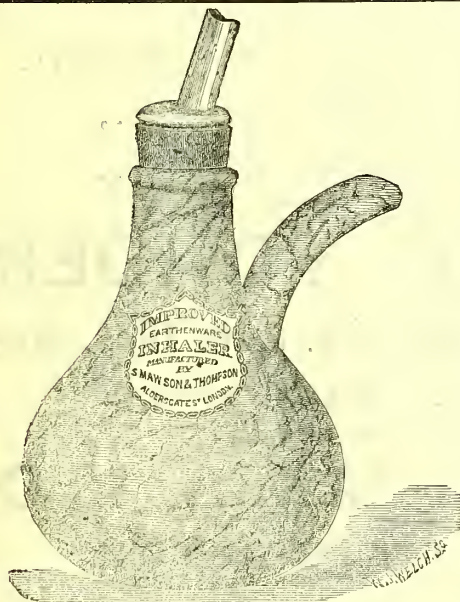
SKIN CHEST PROTECTORS.

ASSORTED SIZES.

AUSTRALIAN OPOSSUM	16s. per dozen.
AUSTRALIAN and LABRADOR RABBIT ...	16s. ,,

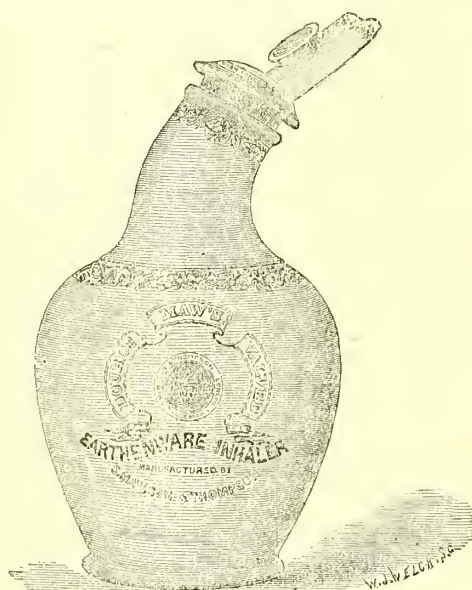
The above are sent out in half-dozen Boxes each, or assorted.

S. MAW, SON & THOMPSON, LONDON.



**MAW'S IMPROVED
EARTHENWARE INHALER,**
36s. per dozen.

With Elastic Tube and extra Glass Mouthpiece, 54s. per dozen.



**MAW'S DOUBLE-VALVED
EARTHENWARE INHALER,**
60s. per dozen.

Ditto, with Elastic Tube, 78s. per dozen.

S. MAW, SON & THOMPSON, LONDON.

TRADE NOTICE.

WM. SCHWEITZER'S PURE SEA SALT.

1s.	Boxes,	7 lbs.	Weight,	9s.	per	dozen.
2s.	„	14 lbs.	„	18s.	„	„
4s.	„	28 lbs.	„	34s.	„	„

WM. SCHWEITZER'S TARAXACUM OR DANDELION COFFEE.

6d.	Tins	-	-	-	4s.	per	dozen.
1s.	„	-	-	-	8s.	„	„
1s. 6d.	„	-	-	-	12s.	„	„

MISS PIKE'S FIT POWDERS,

2s. 9d. size, 27s., 4s. 6d. size, 42s., 11s. size, 108s. doz.

SUBJECT TO USUAL DISCOUNT.

Proprietors, ALLEN, PEARCE & CO.,
10 & 11 BATH STREET, BRISTOL.

WHOLESALE AGENTS.

LONDON—W. EDWARDS, Queen Victoria Street.
PARIS—T. P. HOGG, Pharmacies, 2 Rue de Castiglione.
LIVERPOOL—RAIMES & CO.
MANCHESTER—WOOLEY, SONS & CO.
LEEDS—GOODALL, BACKHOUSE & CO.
NORWICH—SMITH & SONS.

GLASGOW—GLASGOW APOTHECARIES CO.
CORK—GOULDING & CO.
BELFAST—GRATTAN & CO.
EDINBURGH—CLARK & PINKERTON.
EXETER—EVANS, GADD & CO.; HUNT & CO.;
STONE & CO.

Or of any Patent Medicine Warehouse in the World.

RETAIL OF ANY CHEMIST.

RESPIRATORS!!

Maw's Incorrodible Metallic, each in handsomely labelled box,—

No.	1	2	3	4	5	6	7	8	
	10/-	21/-	30/-	32/-	40/-	45/-	50/-	56/-	per doz.
Dwarf	...	...	...	...	...	No. 1	2	3	
						24/-	30/-	40/-	per doz.

									£	s.	d.
Maw's Scarf , Silver-plated	...	...	...	...	...	...	per doz.	3	4	0	
Ditto Gilt	...	...	...	...	...	...	„	4	16	0	
Maw's Æthereon (full-sized instrument)—Silver-plated, in paper cases	...	...	...	...	...	...	„	2	0	0	
Maw's Æthereon (full-sized instrument)—Gilt, in cloth cases	...	...	...	...	...	...	„	3	4	0	
Maw's Micro-Æthereon (diminished instrument)—Silver-plated, in morocco cases	...	...	...	...	...	...	„	2	0	0	
Gilt, in morocco cases	...	...	...	...	...	...	„	3	4	0	
Maw's Cork , in neat boxes	...	...	...	...	...	...	„	0	6	0	

RESPIRATORS OR PNEUMOCCLIMES—JEFFREYS' PATENT.

	Superior, Richly Gilt.		Standard, Ordinary.		Common Materials.	
	Wholesale, each.	Retail, each.	Wholesale, each.	Retail, each.	Wholesale, each.	Retail, each.
Dwarf , in cardboard boxes	4/8	7/0	3/8	5/6	2/4	3/6
Himalene , highly finished, gentlemen's with Shawl Scarf; also removable, for using in the hand	10/0	15/0	5/4	8/0	3/4	5/0
Himalene Promenade , to be held in the hand or suspended	6/0	9/0	4/0	6/0	...	...
Nasal , variable power, ladies' or gentlemen's...	...	...	7/0	10/6	...	...
Oral , low power, ladies' or gentlemen's...	6/0	9/0	4/8	7/0	...	...
Oral , second or full power, ladies' or gentlemen's	8/0	12/0	5/8	8/6	3/0	4/6
Oral , ditto children's	...	...	3/8	5/6	...	...
Orinasal , variable power, medium to low, ladies' or gentlemen's	9/4	14/0	7/0	10/6	4/0	6/0
Orinasal , variable power, medium to low, children's	...	...	4/4	6/6	...	...

S. MAW, SON & THOMPSON,

7 to 12 ALDERSGATE ST., LONDON.

Literary and Scientific.

ESTABLISHED 1842.

THE SCHOOL OF PHARMACY

Of the Pharmaceutical Society of Great Britain.

Chemistry and Pharmacy, Prof. REDWOOD. | Botany and Materia Medica, Prof. BENTLEY. | Practical Chemistry, Prof. ATTFIELD.
Demonstrators, Dr. SENIER and Mr. H. G. GREENISH.

THIRTY-SIXTH SESSION, 1877-8, extending from October 1 to July 31.

Application for admission to the School, for Prospectuses, or for further information, may be made to the Professors or their Assistants in the Lecture Room or Laboratories, 11 Bloomsbury Square, London, W.C.

WORKS ON THE HEART AND LUNGS, &c.,

By Dr. DOBELL,

Consulting Physician (late Senior Physician) to the Royal Hospital for Diseases of the Chest, &c.

Just Published, with Chromolithograph Plate, Second and Enlarged Edition, carefully Revised and Annotated, to which is now added a New Chapter on THE LIVER, ITS FUNCTIONS AND DISORDERS, and their Management in accordance with Modern Discovery.

ON LOSS OF WEIGHT, BLOOD-SPITTING, and LUNG DISEASE. Large 8vo., cloth, 10s. 6d. London: J. & A. Churchill. Re-issued, 1876.**AFFECTIONS of the HEART and in its NEIGHBOURHOOD.** Cases, Aphorisms, and Commentaries. London: Lewis. Enlarged Edition (Sixth), small 8vo., cloth, 6s.**ON DIET and REGIMEN in SICKNESS and HEALTH:** and on the Interdependence and Prevention of Diseases and the Diminution of their Fatality. London: Lewis, Gower Street. Enlarged Edition (Third), carefully Revised and Annotated especially with regard to Change of Climate and other Remedies, New Introduction on the Perivascular System, &c.**ON WINTER COUGH, CATARRH, BRONCHITIS, EMPHYSEMA, ASTHMA.** Large 8vo., cloth, Coloured Plates, 10s. 6d. London: J. & A. Churchill.

Large 8vo., cloth, 10s. 6d. to Non-Subscribers, 7s. 6d. to Subscribers.

R. DOBELL'S ANNUAL REPORTS ON DISEASES OF THE CHEST. Vol. I., for 1875. Vol. II., for 1876. Vol. III., for 1877. London: Smith, Elder & Co.Just Published, 4th Edition, crown 8vo., cloth, price 3s. 6d.
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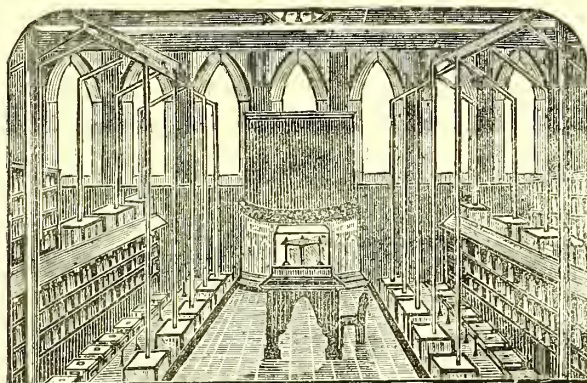
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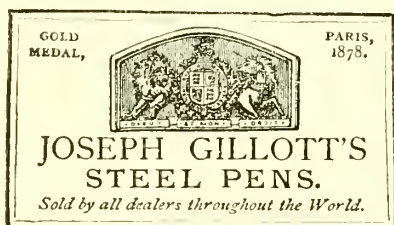
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" Bnek	" Cox
" Burrell	" Davies
" Bush	" Dawson
" Coles	" Exley
" Cowap	" Garrett
" Hayes	" Goddard
" Hinkly	" Graham
" Jones	" Hamer
" Jackson	" Horton
" Marshall	" Hurley
" Morris	" Jarvis
" McBeath	" Lodge
" Millen	" Mason
" Parkes	" Norman
" Richards	" Nowell
" Ridley	" Owen
" Southern	" Patterson
" Strachan	" Pocock
" Stott	" Rutter
" Swindle	" Roberts
" White	" Stuart
" Wyborn	" Ward
Total 29.	Total 29.

* EXAMINATIONS IN LONDON.

FEBRUARY 19, 20, 21, 1879.

MINOR EXAMINATION.

68 Candidates were examined, 28 failed. The following 40 passed:—

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" Brunt	" Dowdeswell
" Brunt	" Everett
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" Cory	" Frost
" Gibbs	" Hartley
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" Laxon	" Lawton
" Lyle	" Lomax
" Mann	" McCrindle
" Mann	" Padley
" Ritson	" Pisani
" Stone	" Phillips
" Williams	" Sims
" Williamson	" Wakefield
" Wimpenny	" Weary
Total 20.	Total 20.

* EXAMINATIONS IN LONDON

JULY 9, 10, 11, 16, 17, 18, 1879.

MINOR EXAMINATION.

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" James	" Drew
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" Macaulay	" Harburn
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" Thompson	" Sellock
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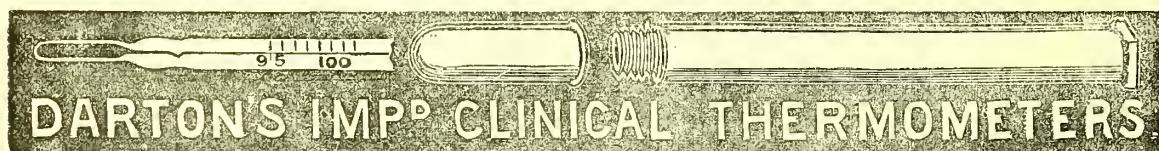
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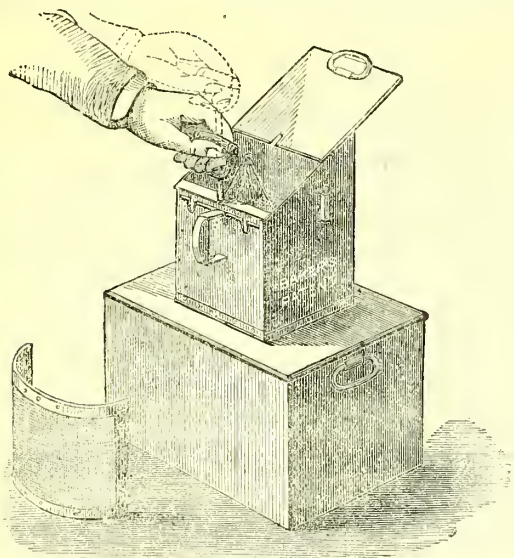
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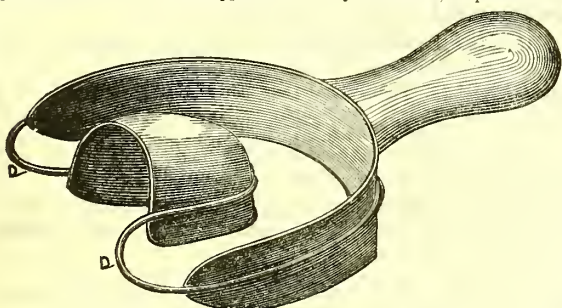


Fig. 1. The Tray empty.

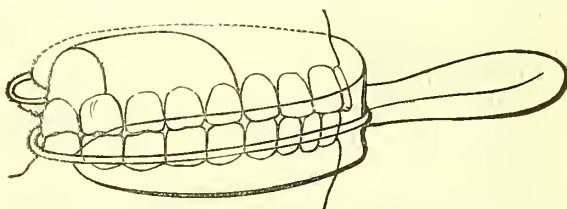


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NOTTINGHAM.—Lock-up Shop in leading thoroughfare; only opened a few months, and doing a pushing trade of £20 per week and rapidly increasing; an energetic young man would do well; price, £400, or valuation.

BIRMINGHAM.—Retail and Dispensing; in excellent position; returns, £1,000; price, £430.

SHEFFIELD.—Wholesale and Retail; in good position; established 100 years; returns, about £3,000; price, as arranged, £1,500.

CHESHIRE.—Old-established Retail, Dispensing, &c.; commanding corner shop, house, &c.; on lease; returns, £1,100 to £1,200; price, £1,100.

CHELTENHAM.—First-class Retail and Dispensing for sale through ill health; returns, £600; for £525.

LEICESTER.—Light Retail and Dispensing in best part; no chemist near; to be sold under exceptional circumstances.

F. J. BRETT, LEICESTER.

MR. T. TRIPPIER,

Transfer Agent and Valuer,
79 ISLINGTON, LIVERPOOL.

ESTABLISHED 1850.

FOR TRANSFER.

ESTABLISHED 35 years; a first-class Family and Dispensing Business, returning over £1,150 per annum, handsomely fitted corner shop, commanding position; large and well-selected stock in good order; capital house and warehouse.

MANCHESTER.—Established 20 years; returns, £580 in Dispensing and Prescribing; all ready money; neatly-fitted corner shop; post-office attached, which pays the rent; good house, private entrance; price, £350; ill-health cause of leaving.

MANCHESTER; returns, £10 per week in Dispensing and Prescribing; compact shop well stocked; good house at low rent; nicely situated in the suburbs.

A GOOD Prescribing Business, in a populous neighbourhood, to be sold cheap.

A GENUINE Family and Dispensing Business; corner shop, elegantly fitted in Spanish mahogany of superior workmanship; well-selected stock in first-class order; established 30 years; commanding position in a leading thoroughfare; commodious house; private entrance at moderate rent.

A number of Businesses, in amounts from £100 to £1,000.

Parties applying for the first time will please send reference to ensure a reply.

Lists of Stock for Appraisement receive immediate attention.

No Commission charged to Purchasers.

TO PROPRIETORS OF PATENT MEDICINES, &c.

Very advantageous terms are offered to advertise in the Daily and Provincial Papers, Patent Medicines and Proprietary Articles, which in many cases will be taken in payment instead of cash. Apply to

MR. JOLLY,

The Eastern & Midland Counties Advertising Agency,

ST. GEORGE'S MIDDLE STREET,

NORWICH.

CHEMISTS' TRANSFERS.

17 HART STREET, BLOOMSBURY SQUARE.

MR. HINE GILBERT

May be consulted every morning, from 10 till 2 o'clock, on all matters of Sale, Purchase, or Valuation, and now submits:—

1.—IN WESTERN LONDON SUBURB. High-class Business of £1,300 yearly; good house, on lease; private entrance; many years in present hands; cash £1,000, to include house-fittings, &c.

2.—IN GOOD LONDON SUBURB. A splendidly-fitted, well-stocked and successful Business; returning £68 per month; long advantageous lease; this business being capable of great expansion would suit two partners; reasons for disposal explained; price, £650; part (£500) in cash.

3.—N.W. A good Prescribing and Dispensing Business for disposal; low rent on a long and expensive lease; returns £800, with large profits; price only £700; reasons for disposal can be fully explained.

4.—LONDON. Old-established Wholesale Chemists' and Chemical Apparatus Manufactory, including lease, plant, and stock; a very extensive business is now being done, which could be greatly increased; price about £1,500.

5.—IN A SOUTHERN WATERING PLACE.—A good Business, of nearly £700 returns; large house, on a long lease; established 78 years; excellent situation; price, £320 only; rare opportunity; good reasons for disposal.

Many others in all parts of England, ranging from £500 to £2,000.

17 HART STREET, BLOOMSBURY SQUARE, LONDON.

SCALE OF CHARGES.

Advertisements appearing under the following Headings are charged at the rate of 4s. 6d. for 7 lines and under, and 6d. extra for every additional line, payable in advance.

SALES BY AUCTION.

PARTNERSHIPS.

BUSINESSES WANTED.

BUSINESSES FOR DISPOSAL.

BUSINESSES WANTED.

WANTED to PURCHASE, a Dispensing Business, in a first-class neighbourhood, in or within 15 miles of town; a commodious house essential. Full particulars, in confidence, to "Calcis," care of Barclay & Sons, 95 Farringdon Street.

BUSINESSES to be DISPOSED OF.

MESSRS. GURDEN BERDOE have for transfer, S.E., Prescribing and Light Retail Business, in densely-populated district and marketing borough, returning £400, at full profits; admirably adapted for surgeon's retail, and much wanted; low price asked, and part can remain; really genuine trade, and trial allowed.

Also the following by Auction, at Mart, Tokenhouse Yard, London, October 20, one o'clock precisely; Chemists seeking businesses should see these:—

WARE, HERTS.—The old-established Business, Stock, Fittings, and ease of Mr. Douglas; large trade has and can be done; established 0 years; situated in High Street, opposite the Church; offers rare opportunity to persevering steady Chemist or Surgeon (in one Lot).

HAVERSTOCK HILL, N.W.—The old-established and profitable Business of Mr. Dunmore, 81 Malden Road, after 19 years successful trading, having taken larger trade in West of England, now returning £400; excellent opportunity for Dentistry (in one Lot).

The reserves of the above are placed very low to sell (the above may be viewed); particulars had; photos, leases seen. Messrs Gurden Berdoe's, chemists' Auctioneers and Valuers, 30 Jewry Street, Aldgate, London.

OUGHBOROUGH.—For Disposal, a General Business; has been carried on successfully for 30 years by the present proprietor, who wishes to tire on account of failing health. John Farrer, Chemist, Loughborough.

FOR DISPOSAL, a Mixed Business, in a manufacturing town, West Riding; corner shop, well fitted; old-established; incoming under 100; rent low. Address, Thomas Edwards, 56 Bellfield Street, Sheffield.

GOOD Retail and Dispensing Business for Disposal; established over 10 years; well-stocked and capitalily-fitted shop; rent £32, on lease; price £150. Apply in first place, by letter, to J. H. P., 374 Old Kent Road, London, S.E.

CHEMIST'S Business for Disposal, near large Junction Station, Hampshire; no opposition for 7 miles; great number of gentry, and large Agricultural district; price £350. H. J., Office of THE CHEMIST AND DRUGGIST, 44A Cannon Street.

FOR DISPOSAL, in Yorkshire, with immediate possession, a genuine Drug Business, successfully carried on for upwards of 40 years by the present and former proprietor; satisfactory reason for leaving; returns last year over £300. Apply, W. B., Clark, Bleasdale, Bell & Co., York.

TO BE SOLD, the Goodwill and Fixtures of a Druggist's Shop, in one of the best thoroughfares in Manchester, established 20 years; has been used as an open Surgery; the Dispensing can remain. Apply, J. A., care of J. E. Tomlinson & Co., Wholesale Druggists, Shudehill, Manchester.

YORKSHIRE, West Riding.—Old-established ready-money Retail, with Post Office and Gilbey's Agency; returns last year £1,086; will be sold for £475, as vendor is leaving the district. Mr. Brett, King Street, Leicester.

BUSINESS for Disposal; by order of the Executrix of the late G. J. Haddock, 35 North Street, Brighton. Particulars may be had, either by personal application or by letter, to Wright, Layman & Umney, 50 Southwark Street, London.

BIRMINGHAM.—An old-established Business, handsome corner Shop, splendid position, rent low, 10 years' lease, returns for the last four years upwards of £900 per annum; proprietor having another business is unable to give sufficient attention; to be sold; a bargain to an immediate purchaser. Apply, Mr. Barclay (Southall Bros. & Barclay), Birmingham.

SHEFFIELD (6 Miles).—Very genuine light Retail, in populous village of 4,000; no other Chemist for miles; vendor obliged to leave through continued ill health and family reasons; returns, which are rapidly increasing, about £1,100, part of which, £340, are for Gilbey's agency. Mr. Brett, King Street, Leicester.

FOR IMMEDIATE DISPOSAL.—An old-established Drug Business in one of the leading thoroughfares near Docks of the largest export town in South Wales, where, in addition to Retail and Dispensing, a good shipping trade could readily be done; satisfactory reasons for disposal; good shop on lease. Address, W. Gibbon, 2 Dock Chambers, Cardiff.

RARE OPPORTUNITY for Small Capitalist.—An old-established Drug Business in Leeds, with Post Office and Gilbey's Agency attached; returns £1,100; 10 years' unexpired lease; exceptionally low rental; full investigation will be afforded; capital required about £400. Apply to Mr. Brooke, Messrs. Hirst, Brooke & Hirst, Leeds.

TO CHEMISTS.—Excellent opening for an enterprising man; handsome corner House and Shop, in the best part of Wood Green, to be sold; splendid position in a well-populated district; also four well-built eight-room Private Houses adjoining, water and gas laid on, baths fitted up with hot and cold water, and every convenience. For particulars, apply to James Pocock, Builder, Finsbury Road, Wood Green, N.

FOR DISPOSAL, an old-established Mixed Drug and Agricultural Business, with several Proprietary Articles and Agencies attached; successfully carried on by the present proprietor for upwards of 35 years, now wishing to retire; no opposition; price, including stock and fixtures, £1,000; none but bona-fide cash purchasers treated with. Apply, in first instance, to Mr. Brooke, Messrs. Hirst, Brooke & Hirst, Leeds.

£200.—OXFORDSHIRE.—In an increasing neighbourhood; corner shop, handsomely fitted; population over 3,000; no opposition; good house, small garden, and private door; rent £35, of which £16 is let off; a long lease can be granted; rare opportunity for a young man commencing business. Apply, J. J. R., care of Messrs. Hearon, Squire & Francis, 5 Coleman Street, London, E.C.

NO OPPOSITION; population 4,000 to 5,000.—For Disposal, in the best part of the new Staffordshire Coalfields, an old-established and genuine Drug Trade, with Gilbey's Agency attached, making a highly remunerative return, which may be considerably increased by an energetic principal; part purchase money may remain. Apply to 880, Wyleys & Co., Coventry.

ISLE of MAN.—An old-established Business for immediate Disposal, situated in the Market Place, Douglas, having the best Agricultural connection in the Island; present proprietor retiring owing to failing health; the Pharmacy Act does not extend to the Isle of Man; price, inclusive of stock and fixtures, about £600. Applications, addressed to C. C., care of Messrs. Evans, Sons & Co., 56 Hanover Street, Liverpool.

FOR DISPOSAL, a Prescribing and Dispensing Business, in the midst of a dense population on one of the best roads in Leeds; tram-cars pass near the door; the present occupier, Mr. James A. H. Toulson, established the business nearly 20 years ago, but is now removing from the neighbourhood; will be sold for a very reasonable sum; suitable for a young chemist or surgeon. Apply on the spot, 110 Kirkstall Road, Leeds.

A BARGAIN.—Chemist and Druggist's Branch Business in Dundee for immediate Disposal for £100; the shop is situated in a leading thoroughfare in the centre of a large population; the receipts per annum are £200 to £250, and capable of doing a large business, if attended to by principal; annual rent £24. For further particulars address, A. B. C., care of Evans, Sons & Co., 56 Hanover Street, Liverpool.

PARTNERSHIPS.

PARTNERSHIP.—Wanted, by Advertiser, a Partnership in a genuine Drug Business; must bear the strictest investigation. Address, with fullest particulars, L., care of Messrs. Evans, Gaid & Co., Exeter.

PARTNERSHIP.—Medical Appliances; the advertiser having a most remunerative invention fully secured, with plant, stock, and connection, desires to sell the half share of same for £200, to pay out present partner. Apply to Mr. Thos. Welton, Maker of Artificial Limbs, 13 Grafton Street West, Fitzroy Square.

EMPLOYERS WANTING ASSISTANTS.

Advertisements are inserted under this Heading at a charge of 4s. 6d. for 7 lines and under; every additional line, 6d., payable in advance.

QUALIFIED DISPENSING ASSISTANT Wanted, for China. Apply, by letter, with full particulars of qualifications and experience, to A. S. W. & Co., 136 Fenchurch Street, London, E.C.

CLERK Wanted; must have a thorough knowledge of the Drug Trade, be quick at figures, and a good penman. Apply, by letter only, to W., care of Messrs. Burgoyne, Burdidge, Cyriax & Farries, 16 Coleman Street, London.

WHOLESALE.—A competent Assistant required for the Wet Counter. Apply to A. B., by letter only, stating age, salary required, and where last employed, to care of Messrs. Sebrader & Co., Stationers, St. Mary Axe, E.C.


WANTED, in a large town in South Wales, an Assistant competent to Manage a Mixed Chemist's Business in the occasional absence of the principal. Apply, personally, or by letter, to Messrs. Hodgkinson, Prestons & King, 88 Leadenhall Street, London.

CHEMIST'S ASSISTANT Wanted for India. A Gentleman wanted, to proceed to India at once, to take charge of a first-class Chemist's establishment; must have passed the Major examination; liberal salary given, and engagement for a term of years. Apply to Mr. Blackhall, Messrs. Burgoyne, Burdidge, Cyriax & Farries, 16 Coleman Street, E.C.

SALARY £150 to £200.—Chief Clerk Wanted, in West Midland county; must be a good correspondent, and thoroughly experienced in the affairs of a mercantile office having home and export trade; applicants must state all particulars in first communication; references must be unexceptional. Address, M., care of C. Mitchell & Co., Advertising Agents, 12 and 13 Red Lion Court, Fleet Street, E.C.

TWO CHEMISTS and DRUGGISTS.—Wanted, in an Institution near London, a Resident Storekeeper, who can also undertake the Dispensing; one accustomed to a Mixed country business preferred; he should be single, or if married, without children, and employment could be provided for his wife. Address, stating salary required, to L. L. 986, Messrs. Deacons, 154 Leadenhall Street, E.C.

ASSISTANTS WANTING SITUATIONS.

 Please note that replies to Advertisements ordered to be addressed to Post Offices are liable to be forwarded to the Dead-Letter Office.

Assistants Wanting Situations have the liberty of inserting advertisements of 12 words for 1s.; every additional 3, 4, or 6 words, 6d., payable in advance.

ASSISTANT; aged 23; unexceptionable references; Lancashire preferred. H., 41 Harbour Street, Southport.

AS ASSISTANT; 7 years' experience; Minor qualification; good references. X., 15 Clifton Street, Aberdare.

SITUATION as Manager or Traveller; satisfactory references; can Prescribe and Extract Teeth. J. P. M., Kentisbeare, Cullompton.

AS ASSISTANT; 9 years' experience; disengaged in November. W. B., 27 Kensington Road, Southport.

BY an active Young Man, as Warehouseman; well-up in all branches; good references. Z., 11 Providence Street, Lynn, Norfolk.

AS MANAGER for Laboratory; 10 years' experience in Chemical and Pharmaceutical Preparations, Pearl-coated Pills, &c.; highest references. P. L., 120 Barnsbury Road.

WANTED, Situation, either in Wholesale or Retail; aged 30; highest references; London preferred; 14 years' experience. "Chemicus," Office of THE CHEMIST AND DRUGGIST, 44A Cannon Street.

AS ASSISTANT, with view to Partnership or Purchase; 12 years' experience; married. Full particulars to "Chemicus," 48 Trafalgar Street, Leeds.

AS ASSISTANT, with view to early Succession, in a Dispensing Business. London or suburbs preferred. Address, R. Trood, Compton, Sherborne.

IN YORKSHIRE.—As Junior, or Assistant, by Advertiser; aged 21; London and country experience; first-class references. T. G. H., 2 Dante Road, London, S.E.

DENTISTRY.—Wanted, after Christmas, Re-engagement as Dental Assistant, Surgical and Mechanical; willing to introduce or teach the business. C. G. E., Dr. Branson, Rotherham.

AS ASSISTANT, in a good-class Retail and Dispensing Business; aged 24; height 5 ft. 11 in.; please state salary and hours. "Chemicus," 68 Lambeth Road, London.

AS JUNIOR to a Chemist, in a good Dispensing Business in London; 5 years' experience; height 5 ft. 8 in.; aged 20. Apply to O. K., 106 Hemingford Road, Barnsbury.

TEMPORARY ASSISTANT, or Manager; by the day or week; town or country; aged 46; of active business habits; first-class testimonials. "Chemicus," 5 Howbury Road, Nunhead, London.

ASSISTANT, or Manage Branch, with view to Partnership or Succession. Particulars to O. L., Office of THE CHEMIST AND DRUGGIST, 44A Cannon Street.

CLERK, Traveller, or Agent.—Wanted, by a Young Man, with 5 years' experience in the Druggist's Sundry trade. V., Office of THE CHEMIST AND DRUGGIST, 44A Cannon Street.

IMPROVER.—A Chemist's son, aged 16, 3 years in his father's shop, seeks indoor Situation; references exchanged. Owen & Co., Chemists, Stamford Hill.

WHOLESALE Druggists and Druggists' Sundrymen.—Required, Re-engagement as Traveller. Address, W. S., Office of THE CHEMIST AND DRUGGIST, 44A Cannon Street.

WHOLESALE.—As Assistant; Wet and Dry Counter; been accustomed to Retail for some years, and passed Preliminary; height 5 ft. 8 in.; willing and obliging; good references. Rimington, Mr. Brown's, Chemist, Brigg.

MANAGER or **SENIOR**, Traveller, Manage Branch, Working Partnership or view to Succession; Temporary or Locum Tenens; 18 years' first-class practical experience; Major qualification; aged 33; married; London or suburbs preferred. "Verax," 4 Dunstable Terrace, Richmond.

AS JUNIOR; aged 21; 5 years and 10 months' experience; indoor or outdoor; good references; speaks French; disengaged in one month from November 1. Apply to X. Y. Z., care of W. Brown, Bicester Road, Aylesbury.

IMMEDIATELY, as Manager or Assistant; home or abroad; indoor; aged 27; 14 years' experience; 6 years in business for self; Minor; unexceptional references. Address, S. A., Office of THE CHEMIST AND DRUGGIST, 44A Cannon Street.

MISCELLANEOUS.

WANTED TO PURCHASE, a PATENT MEDICINE or PROPRIETARY ARTICLE that has been fairly introduced to the public. State returns, price required, and full particulars, to Mr. Jolley, St. George's, Middle Street, Norwich.

BEST SEIDLITZ POWDERS. JAMES C. CHUBB

Supplies the above, loose, at 7/- per gross; and in boxes at 8/-, 9/-, and 10/- per doz., through the Wholesale Houses, or from 29 OLD STREET, LONDON, E.C.; and will forward list of articles packed by him on application.

IMPORTANT NOTICE.

From November 1st, 1879, the Wholesale Price of **ROBSON'S RHEUMATIC MIXTURE**

Will be for the 1/1½ size, 12/ doz.; 2/2 size, 24/ doz.; 4/6 size, 48/ doz.

And for

ROBSON'S COUGH ELIXIR—

1/1½ size, 12/ dozen; 2/9 size, 30/ dozen, less the usual discount.

Of all Patent Medicine Houses.

Manufactory, 161 Cleethorpe Road, Grimsby, Lincolnshire.

"GOLDEN STAR" BAY LEAF WATER.

Trade Mark.  Registered.

The Only True and Genuine. Unrivalled in Richness and Delicacy.

Put up in an Attractive Form, and commands a Ready Sale.

The above quality has never before been offered in the English market. Its immense sale has heretofore been confined to America and West Indies. It is offered with the positive assurance that it is unequalled, and a successful rival with all other fine Toilet Waters.

SUPPLIED BY ALL WHOLESALE DEALERS.

Distillers' Agency: 114 and 116 Southampton Row, LONDON, England.

"PERFECTION"



MRS. S. A. ALLEN'S World's Hair Restorer

Never fails to restore Grey Hair to its youthful colour, imparting to it new life, growth, and lustrous beauty. Its action is certain and thorough, quickly banishing greyness. It is not a Dye. It ever proves itself the natural strengthener of the Hair. Its Superiority and Excellence are established.

The GENUINE only in PINK WRAPPERS Sold by all Chemists & Perfumers

Principal Depot: 114 & 116 Southampton Row, LONDON, England.

THE CHEMISTS' BALL.

By permission of the Council of the Pharmaceutical Society, a Meeting will be held at 17 Bloomsbury Square, on MONDAY EVENING, NOVEMBER 3, 1879, at 8.30 P.M., for the purpose of making preliminary arrangements for ensuing ball. Any gentleman desirous of becoming a Steward, and unable to be present, will oblige by informing the Honorary Secretary of such his intention without delay.

143 New Bond Street, W.

ARTHUR L. SAVORY, Honorary Secretary.

Steam Printing Works. Old Kent Road, London.

THE CHEAPEST & BEST
IN THE MARKET

JAVIS'S TOILET ALMANAC 1880

SPECIMENS

NOW READY

SEND STAMP
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SAMPLE & PARTICULARS

Estimates for Every Description of Printing.

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PROPER COMPOSITION.

In contradiction to the extraordinary statement made by Mr. Condry that "GENUINE CONDY'S FLUID IS NOT AND NEVER WAS COMPOSED OF PERMANGANATE OF POTASH," The Condry's Fluid Co. insist that Genuine Condry's Fluid (Crimson) IS and SHOULD BE composed of Pure Permanganate of Potash, in accordance with the Patent Specification and the principal Medical and Chemical authorities, as well as with the declarations of composition issued by the late Bollmann Condry partnership firm, wherein the description ran as follows:—"Condry's Fluid (Permanganate of Potash) . . . Permanganate of Potash (Condry's Fluid) . . . H. B. Condry."

CONTINUED REDUCTION IN TRADE PRICES

THE CONDY'S FLUID CO., FALCON STREET, E.C., maintain the following Reductions in the Trade Prices of their genuine articles, which can always be relied upon as being of full strength and perfect purity:—

CONDY'S PATENT FLUID (Crimson), 1s. size, 6s. per doz.; 2s. size, 12s. per doz.; 4s. size, 24s. per doz.

CONDY'S PATENT OZONISED WATER, 2s. size, 12s. per doz.; 3s. 6d. size, 20s. per doz.

CONDY'S PATENT FLUID (Green), CONDY'S REMEDIAL FLUID, CONDY'S HEALTH POWDER, CONCENTRATED VINEGAR, &c., as before.

LIBERAL TERMS TO WHOLESALE AND EXPORT BUYERS.

N.B.—In ordering through the Trade, please NOTE THE ADDRESS, FALCON ST., and specify our articles at REDUCED TRADE PRICES, which are listed by all Wholesale Houses less their usual discounts. THEY ARE MADE IN STRICT ACCORDANCE WITH THE PATENT, ARE UNIFORMLY UP TO STRENGTH, free from impurities and sediment, securely corked, and always give satisfaction alike to consumer and to dealer. THEY ARE GUARANTEED BY THE ORIGINAL LABELS OF THE LATE FIRM WITH PRIZE MEDALS AWARDED AT INTERNATIONAL EXHIBITIONS, the unwarranted use of which is a misdemeanor, and the right to which is confirmed to the Company by Decree.

THE CONDY'S FLUID CO., FALCON ST., E.C.

A. D. MITCHELL, Managing Partner.

N.B.—ASK FOR THE LABEL WITH ALL PRIZE MEDALS, AND SEE THAT YOU GET IT.

THE CONDY'S FLUID CASE.

FINAL DEFEAT of MR. H. BOLLMANN CONDY

FAILURE AND EXPOSURE OF THE "TRAP TO CATCH CHEMISTS."

CONDY v. MITCHELL. COURT OF APPEAL, LINCOLN'S INN, Nov. 27, 1877.

LORD JUSTICE JAMES (without needing to hear defendant's counsel) said—That such a suit should have been instituted at all was very remarkable; but that, after the learned Vice-Chancellor's judgment, this appeal should have been brought on was particularly strange. Dr. Mitchell had obtained his right by payment of a substantial money consideration, and CONDY'S FLUID AND CONDY'S OZONISED WATER WERE AS MUCH HIS PROPERTY AS THE PLAINTIFF'S. Having that right, Dr. Mitchell was entitled to set up the Condry's Fluid Company.

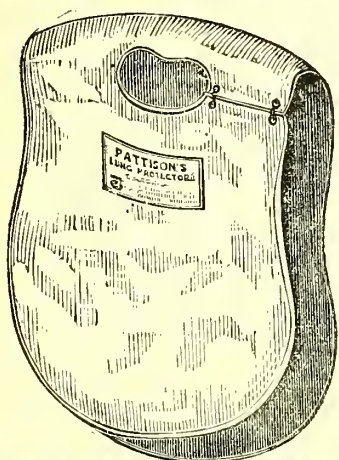
LORD JUSTICE BAGGALLAY was of the same opinion. The style of the partnership had been "Bollmann Condry & Co.," and the plaintiff set up in his own name of "H. Bollmann Condry." It was not necessary to consider whether he might have been restrained from so doing; but he came into court with a very bad grace. To get evidence HE HAD RESORTED TO WHAT WAS, IN FACT, A TRAP TO CATCH CHEMISTS.

LORD JUSTICE THESIGER was also of that opinion; and especially as to the character of the plaintiff's evidence. A good deal it seemed to him not admissible at all.

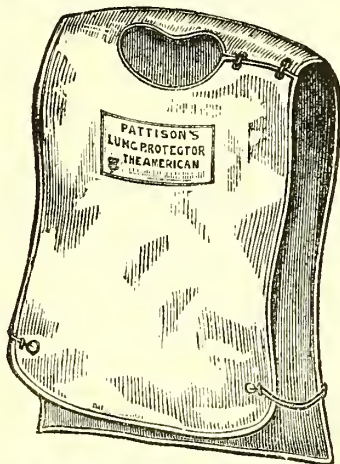
LORD JUSTICE JAMES: APPEAL DISMISSED WITH COSTS.

THE LUNG PROTECTOR

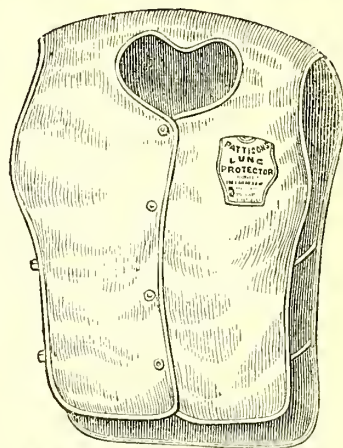
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THE LUNG PROTECTOR.
ORIGINAL PATTERN.



LUNG PROTECTOR.
THE AMERICAN.



LUNG PROTECTOR.
THE CANADIAN.

PRICES.

ORIGINAL PATTERN, Six sizes—No. 0, 14/-; 1, 18/-; 2, 26/-; 3, 34/-; 4, 42/-; 5, 52/- per dozen.

THE AMERICAN, Five sizes—No. 1, 20/-; 2, 28/-; 3, 36/-; 4, 44/-; 5, 54/- per dozen.

THE CANADIAN, Six sizes—No. 1, 22/-; 2, 30/-; 3, 40/-; 4, 50/-; 5, 60/-; 6, 70/- per dozen.

FELT CHEST PROTECTORS.

PRICES:—No. 00, 4/-; 0, 6/-; 1, 8/-; 2, 10/-; 3, 12/-; 4, 16/-; 5, 20/- per dozen.

ALL IN SCARLET OR WHITE.

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GEORGE PATTISON,

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Articulated White Felt

CORN AND BUNION PLASTERS.

MANUFACTORY:

72 CLERKENWELL ROAD, LONDON, E.C.,

Lately known as 37 WILDERNESS ROW.

Address Altered by Order of the Board of Works.

Infants' Feeding Bottle Manufacturer for the Million.



WILLIAM MATHER,

WHOLESALE AND EXPORT

DRUGGISTS' SUNDRIESMAN,



Manufacturer of Court Plaster, Goldbeaters' Skin, and Surgical Plaisters, Surgical Instruments and Medical Glass,
LONDON AND MANCHESTER.

MATHER'S NIGRINE
A JET BLACK MARKING FLUID,
FOR MARKING LINEN, COTTON &c
NO PREPARATION OR HEATING REQUIRED AFTER BEING WRITTEN.

ALL CHEMISTS & STATIONERS
SELL

MATHER'S NIGRINE.

IN BOTTLES AT

6d., 1s., 2s. 6d., & 5s. each.

Samples sent post free on receipt of
Thirteen Stamps.

Ladies will find an interesting and agreeable occupation in using MATHER'S NIGRINE for Etching Fern Leaves, Rustic Scenery, Views, &c., on cloth, which may be used for dessert doyleys, antimacassars, toilet mats, and sundry other ornamental and useful work, as, from the finer lines remaining distinct after repeated washing, very satisfactory results may be obtained from this fluid, which is not the case with any other marking ink.

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MATHER'S NIGRINE.

- 1st.—NO WARM IRON or HEATING required.
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- 4th.—Can be used with a STEEL or QUILL Pen, BLOCKS, or STENCIL PLATE, for Monograms.
- 5th.—The BOTTLES contain DOUBLE the QUANTITY of ordinary Marking Inks.
- 6th.—Becomes, when washed, a JET BLACK, which gets DARKER with repeated washings and age.
- 7th.—Cannot be removed by ANY CHEMICAL MEANS.
- 8th.—Will Not Injure the most delicate Fabric.
- 9th.—Flows Readily from the Pen.

TRADE PRICE OF
MATHER'S NIGRINE.

Per dozen—

3s. 6d., 7s., 18s., 36s.

A Liberal Discount to Large Buyers.

Extract from *The Lancet*, Jan. 5th, 1878.

NIGRINE:
A Jet-Black Marking Fluid.
(WM. MATHER, Farrington Road, London.)

We can recommend this as a very good and convenient Marking Ink. We have submitted Linen marked with it to some of the most powerful of Chemical Agents, including Acids, Alkalies, and Chlorine, and Cyanide of Potassium, and have found that it was very much easier to destroy the Linen than the marking upon it; in fact, the writing could not be effaced by any of the agents we employed.



ALL "MATHER'S NIGRINE"

Will stand Boiling in the following Solutions, whereas Marking Inks made with Silver will not:—

SOLUTION:
Cyanide of Potassium,
Caustic Potash,
Caustic Soda,
Chloride of Lime or
Bleaching Powder.

MATHER'S IMPROVED FEEDING BOTTLE, SIXPENNY SIZE, 3/6 PER DOZ.

MATHER'S IMPROVED FEEDING BOTTLE, SHILLING " 6/- "

MATHER'S LATEST IMPROVED NEW FEEDING BOTTLE, "THE PRINCESS,"

With Porcelain Fittings, 7s. per doz. | With Boxwood Top Corks, 3s. 6d. per doz.

With Pure Tin Screw Cap and Patent Valve, 12s. per doz.

MATHER'S CHEMICAL FLY PAPERS { For Poisoning Flies, Wasps, } **20/-** { Per 1,000
Ants, Mosquitoes. Sheets.

MATHER'S ROYAL BALSAMIC PLAISTERS, ON LEATHER.

SPECIALITIES.

MATHER'S Adhesive Spread Plaster.
MATHER'S Alexandra Breast Exhauster.
MATHER'S Balsamic Plaisters.
MATHER'S Bunion Plaisters.
MATHER'S Benziline.
MATHER'S Cod Liver Oil Plaisters.
MATHER'S Cough Lozenges.
MATHER'S Corn Plaisters.
MATHER'S Court Plaster.
MATHER'S Chemical Fly Papers.
MATHER'S Chlorodyne Lozenges.

MATHER'S Chest Protectors.
MATHER'S Emp. Cor. Sponges.
MATHER'S Elastic Gum Bougies.
MATHER'S Elastic Gum Catheters.
MATHER'S Elastic Stockings, Belts, &c.
MATHER'S Flesh Gloves and Rubbers.
MATHER'S India-rubber Syringes, &c., &c.
MATHER'S India-rubber Teats, &c.
MATHER'S India-rubber Tubing.
MATHER'S Marking Ink.
MATHER'S Nelson's Improved Inhaler.

MATHER'S Oriental Rose Cream.
MATHER'S Poor Man's Plaisters.
MATHER'S "Princess" Feeding Bottle.
MATHER'S Pill Machines.
MATHER'S Perfumes in bottle and bulk.
MATHER'S Rose Cream.
MATHER'S Root and Drug Cutter.
MATHER'S Sponge Bags.
MATHER'S Tincture Presses.
MATHER'S Violet Powder.

TEN PER CENT. DISCOUNT FOR CASH. SPECIAL QUOTATIONS TO WHOLESALE AND EXPORT BUYERS.

On the 1st of March, 1st of June, 1st of September, and 1st of December, is published MATHER'S QUARTERLY PRICES CURRENT, comprising Druggists' Sundries, Medical Glass Ware, Perfumery, Surgical Plaisters, &c., &c. Chemists and Druggists not receiving it in due course are respectfully requested to forward their names and addresses to Publishing Department, FARRINGTON ROAD, LONDON, when they will be placed on the Register for regular transmission.

Index to Advertisements.

October 15, 1879.

SCALE OF CHARGES FOR ADVERTISEMENTS.

Whole Page, £5. Half Page, £2 15s. Third Page, £2. Quarter Page, £1 12s. Sixth Page, £1 5s. Eighth Page, 18s.

Special Rates for Wrapper and pages preceeding and following Literary matter, also pages facing inside of Wrapper. The above Scale of Charges will be subject to a discount of 10 per cent. upon 7 and 20 per cent. upon 13 insertions, prompt quarterly payments.

N.B.—An order for 13 insertions means 12 in the CHEMIST AND DRUGGIST and 1 in the CHEMISTS' AND DRUGGISTS' DIARY. The same rule also applies to an order for 7 insertions, or to an order for insertion until countermanded, if such order is in force in October of any year.

All Advertisements intended for insertion in the current Month must be sent to the PUBLISHER OF THE CHEMIST AND DRUGGIST on or before the 12th, except Employers' and Assistants' Advertisements, which can be received up to 10 A.M. on the morning previous to publication.

(A)

ALEXANDER, W., & CO.	Glass Bottles	108
ALLEN, R. J., & SON	Bessemer's Gold Paints	45
ALLEN & HANBURY	Jugubes, Extract of Malt, &c.	11
ALLEN & HANBURY	Perfected Cod-Liver Oil	10
ANALYTICAL SANITARY INSTITUTION	TEXT	446
ANSTIE, E. & W.	Tobaccos	94
ARNOLD & SONS	Clinical Thermometers	6
ASSISTANTS WANTING SITUATIONS		28
ATKINSON, G., & CO.	Chemists	71

(B)

BAILDON, H. C., & SON	Aperient Fruit Lozenges	74
BAILEY, W. H., & SON	Trusses	50
BAISS BROTHERS & CO.	Wholesale and Export Druggists	63
BAKER, J., & SON	Mixing and Sifting Machine	25
BAKER, Mr.	Beer in Bottle	23
BARBER, T.	Vermin Killer, &c.	88
BARRETT, SON & POSTER	Soda Water Machinery, &c.	97, 112
BARRETT & ELLERS	Patent Stopper Aërated Water Bottles, &c.	99
BARRON, SQUIRE & CO.	Wholesale and Export Druggists	68
BARNBURY GLASS CO.	Glass Bottles	78
BARTH, G., & CO.	Nitrous Oxide Gas	46
BATTLE, J. R.	Vermin Killer	88
BATLEY & WATTS	Wholesale Druggists	68
BAYLY, W.	Laundresses' Friend	41
BEECHAM, T.	Pills	77
BEST, W., & SONS	Natural Mineral Waters	96
BEWLEY & DRAPER	Dichroic Ink	52
BILLING, DR.	Deodorising and Disinfecting Fluid	89
BISHOP, A.	Citrate of Magnesia	100
BOEHRINGER & SOEHNE	Sulphate of Quinine, &c.	58
BOND'S DAUGHTER.	Caution—Marking Ink	37
BOUDAULT, H.	Pepsine	57
BOURNE & TAYLOR	Respirators—Chest Protectors	35
BOWLES & CROSS	Medical and General Printers	20
BRACHER, P. H.	"Desideratum Mixer"	93
BRADLEY & BOURDAS	Plate Powder	45
BRAND & CO.	Specialities for Invalids	92
BRANSON	Coffee Extract	91
BRETT, F. J.	Transfer Agent and Valuer	26
BRETT, H., & CO.	Rectified Spirits of Wine	39
BRIEN & CO.	Miraciline	41
BRISTOW, T. F., & CO.	Toilet Soaps and Perfumery	45
BROOK & CO.	Dandelion Coffee	91
BUCK, F.	Dentistry	20
BUCKLOCK, J. L., & CO.	Pepsina Porci	64
BURGESS, WILLOWS & FRANCIS	Wholesale Druggists	80
BURROUGH, J.	Chemically Pure Sp. Vini Rect.	39
BURROUGHS, S. M., & CO.	Extractum Malti, "Kepler," &c.	51
BURTON, G.	American Drug Mills	93
BUSINESSS WANTED and FOR DISPOSAL		27
BUTCHER, W., & CO.	Homœopathic Medicines	TEXT, 446
BUTT, W. E., & CO.	Chemicals	71

(C)

CADBURY BROS.	Cocoa Essence	112
CANTRELL & COCHRANE	Mineral Waters, Ginger Ale, &c.	101
CENTRAL SCHOOL OF CHEMISTRY AND PHARMACY		20
CENTRETON, J.	Higginson's Enemas	25
CHALLONER, J., & SONS	Aërated Waters	102
CHEMIKER-ZIETUNG (GOTHEN)		59
"CHEMIST AND DRUGGIST" DIARY FOR 1880		45, 59
CHEMISTS' BALL, THE		29
CHESEBROUGH MANUFACTURING CO.	Vaseline	4
CHOCOLAT MENIER		56
CHUBB, J. C.	Seidlitz Powders, &c.	28
CHURCHILL, J. & A.	Medical Works	20
CLARKE, F. J.	Blood Mixture	80
CLAEVER & CO.	Field's Liquor Taraxaci	67
COCKING, T. S.	Pill Machine	63
COLE, G.	Packing Cases	105
CONDY'S FLUID CO.	Proper Composition	30
CONDY, R., & CO.	The Cheapest Condy's Fluid	41
COOPER, J.	Pure Leicestershire Leaf Lard	83
COOPER, W.	Sheep Dipping Powder	87
COOPER, W.	Carbolic Seed Protector	87
CORBYN, STACEY & CO.	Syrupus Chloratis—Liebreich, Pepsin-Essenz, Chautmoogra Oil, &c.	1, 64

COULTHURST & HARDING	Oils, Paints, Grease, &c.	96
COX, A. H., & CO.	Tasteless Pills	76
CRAVEN, M. A.	Wholesale & Export Confectioner	108
CRAWSHAW, E., & CO.	Crystal Dyes, &c.	46
CRITCHLEY, T.	Starch Gloss	95
CUFF, J. H.	Mineral Waters	102
CURTIS & CO.	Concentrated Infusions, &c.	69
CURTIS, J., & SON	Chemists' Shop Fitter	84

(D)

DAVIS	Toilet Almanac, 1880	29
DARLING, W.	Dentifrice	39
DARTON, F., & CO.	Scientific Instrument Manufacturers	24
DAVENPORT, J. T.	Chlorodyne	72
DAVENPORT & CO.	Soda Water Machinery	97
DAY, SON & HEWITT	Horse, Cattle, and Sheep Medicines	89
DENNIS, J. W.	Pig Powders	87
DENOVAL, J.	Peruvian Mixture Capsules	75
DINNEFORD & CO.	Solution of Magnesia	74
DOBELL, Dr.	Works on the Heart and Lungs	20
DUNCAN, FLOCKHART & CO.	Chloroform, &c.	69
D'UNGER, D.	Bark Cure for Dipomania	58
DUNN & CO.	Manufacturing Chemists	71

(E)

EARP & CHASTER	Chemical Manufacturers	71
ELLIMAN, SONS & CO.	Embrocations	87
ELLIS & SON	Aërated Waters	102
EMPLOYERS WANTING ASSISTANTS		28
ENO	Fruit Salt	110
ENTWISTLE BROS.	Mechanical Dentistry	20
EPPS, J., & CO.	Homœopathic Counter Show Case	83
ERHARDT & CO.	Vegetable Parchment and Skins	38
ESSEX FLOUR & GRAIN CO.	Flour of Egyptian Lentils	94
ETZENSBERGER, R.	Steam Tea and Coffee Filters	90
EVANS, J.	Extract of Malt	80
EVANS & WORMULL	Dr. Jea's Blood and Nerve Tonic	25
EVANS, R., & CO.	Zoedone	104
EVANS, SONS & CO.	Wholesale Druggists	16
EVANS, LESCHER & WEBB	New Premises	16
EWEN & SONS, J.	Clarified Lard, &c.	40

(F)

FARINA, J. M.	Eau de Cologne	60
FAULDING & CO.	Wholesale Druggists	58
FENNINGS, A.	Children's Powders, &c.	112
FERRIS, BOORNE, TOWNSEND & BOUCHER	Pure Thymol Soap	86
FIELD, J. C. & J.	Ozokerite, Candles and Toilet Soaps	108
FIELD, J. C. & J.	Ozokerine	9
FINCH, RICKMAN & CO.	Mustard	95
FITCH & NOTTINGHAM.	Leeches	40
FLETCHER & FLETCHER	Concentrated Liquors	TEXT, 446
FOX, G. W., & CO.	"Palatable" Cod-Liver Oil	81
FRANCIS, J.	Printing Presses	40
FRY & SONS.	Chocolate and Cocoa	95

(G)

GALLAIS, E., & CO.	Mineral Waters	TEXT, 446
GAS PURIFICATION & CHEMICAL CO.	Bi-Sulphide of Carbon	70
GEORGE, J. E.	Pills	76
GIBSON, R.	Medicated Lozenge Manufacturer	81
GILBERT, HINE.	Transfer Agent and Valuer	27
GILLOTT, J.	Pens.	22
GLASGOW APOTHECARIES' CO.	Recess-labelled Bottles	78
GODDARD, J.	Chemists' Price Book	20
GODDARD, J.	Plate Powder	45
GOODALL, BACKHOUSE & CO.	Household Specialities	95
GOUSEY & ROGERS	Plasters, &c.	74
GOULD, E., & SON	Homœopathic Chemists	TEXT, 446
GRAY, R.	Sherry for Medication	39
GREENSILL, T. S.	Mona Bouquet	41

(H)

HARMER, W. J.	Sanitary Fluid	88
HARRISON, W. B.	Norwegian Block Ice—Mineral Waters	102
HARRIS, P., & CO.	Zinc Oxyd, (Harris's)	53
HART, J. W.	Isinglass	92
HAY, W.	Concentrated Essence of Jamaica Ginger	103
HAYWOOD, J. S.	Elastic Stocking Maker, &c.	75

HENRY, T. & W.	Calced Magnesia	105
HINDE BROS.	Wire Hair Brush	42
HINDLEY, E. S.	Small Steam Engines	98
HOLDEN, A.	Publisher	25
HOTCHKISS & SONS	Essential Oils	61
HOOPER & CO.	Mineral Waters	1
HOWLETT, S.	Shop Filter	84
HUGGINS, R.	Ozone Paper and Cigarettes for Asthma	63
HUNT, W. F., & CO.	Plated Paper Bottle Caps	38

(I)

INGRAM & ROYLE	Price List of Mineral Waters	112
IZOD, J.	Meerschaum and other Pipes	81

(J)

JACKSON, M., & CO.	Chemical and Scientific Apparatus	24
JACKSON, T. S.	Wood Stains	40
JAHNCKE, ERNST	Wax Vestas	49
JAMES & CO.	Lentilla, or Daily Food	5
JAMES, LEBUT	Horse Blistering Ointment	89
JEWSBURY & BROWN	Tooth Paste—Important Notice	36
JOLLY, Mr.	Advertising Agent	26
JOSEPH	Eau de Cologne	41
JUDSON, D., & SON	Dyes, Artists' Black, Gold Paint, &c.	15, 39

(K)

KEMPTHORNE, PROSSER & CO.	Colonial Druggists	58
KIDSTON, F.	Shop Filter, &c.	84
KILNER BROS.	Glass Bottles	78
KNOWLES, T.	Seidlitz Powders	42
KROHNE & SESEMANN	Rubber Bandages	75

(L)

LAMBE, J. B., & CO.	Seal Mottos for Mineral Water Bottles	100
LAMPLOUGH	Pyritic Saline	105
LANG, J. & J.	Glass Bottles, Feeding Bottles, Enemas, &c.	42
LA TROBE, H.	Soluble Cocoa	94
LALOR, DR.	Phosphodyne	79
LAZENBY, E., & SON	Pickles and Sauces	95
LEATH & BOSS	Homœopathic Medicines	3
LE MONITEUR DES PRODUITS CHIMIQUES, &c.		59
LEON CLEIR & CHARLES	Benzoline	96
LEVERMORE BROS.	Precipitated Chalk	61
LEWIS, H. K.	Formulary of Selected Remedies	20
LINDLEY, H.	Gout and Rheumatic Pills	74
LINDEY & SONS	Truss and Bandage Manufacturers	50
LOEFLUND, E.	Extract of Malt	80
LOW, SON & HAYDON	Perfumery	7
LOWE, R. H.	Pills	76
LUTSCHAUNIG & CO.	Nitrate of Silver	63
LYNCH & CO.	Trommer's Extract of Malt	81
LYNCH & CO.	Trusses	43
LYNCH & CO.	Chest Protectors	111

(M)

MACFARLAN, J. F., & CO.	Pure Chloroform	69
MACKENZIE & CO.	Compound Cod-Liver Oil Emulsion	TEXT, 446
MCLACHLAN, H.	Foreign Chemist	58
MALINE MANUFACTURING CO.	Mattine	6
MAWSON & SWAN	Norwegian Cod Liver Oil	5
MATHER, W.	Nigric Marking Ink	32
MAW, SON & THOMPSON	New Show Rooms	12, 9
MAW, SON & THOMPSON	Bromo Paper	47
MAW, SON & THOMPSON	Feeding Bottles	19
MAW, SON & THOMPSON	Respirators	17
MAW, SON & THOMPSON	Chest Protectors—Inhalers	73
MAW, SON & THOMPSON	Lint	91
MAWER, E.	Dandelion Coffee	2
MAY & BAKER	Manufacturing Chemists	40
METZ, PAUL	Willow Boxes	102
MILLS & CO.	Bourne Aërated Waters	99
MONDOLLOT & CO.	Soda Water Machinery	40
MUDDIMAN, A. P.	Spanish Wash	416
MUMFORD, G. I.	Pure Crushed Linseed	36
MURPHY, J.	Marking Ink	58
MYERS & SOLOMON	General Merchants	

(N)

NATIONAL CHEMICAL CO.	Chloride of Lime	86
NELSON, DALE & CO.	Home Comforts	22
NERWICH & CO.	Tooth Paste, &c.	38
NESTLE, H.	Milk Food	92
NEUSTADT & CO.	Chemicals	70
NEWBERRY & SONS	Berdie & Co.'s Perfumes, &c.	53
NEWBERRY & SONS	Toilet Paper and Brown Windsor Soap	55
NEWHAM, B., & CO.	Chloride of Lime, &c.	96
NORTH BRITISH CHEMICAL CO.		70
NUTTALL, C., & SONS	Teething Powders—Pills	76

(O)

ODET, M. C.	Solution Odet	59
ORIENTAL COMPANY	Tea	90
ORRIDGE & CO.	Chemists' Transfer Agents	26
OSBORNE, E. M.	Golden Drops for Deafness	82

(P)

PAGNY, WALLACE & CO.	Vin de Baudon	59
PARNELL	Chalybeate Saline	105
PARTNERSHIPS		28
PATTISON, G.	Bath Gloves, Lung Protectors, &c.	31
PEARCE, ALLEN & CO.	Trade Notice	18
PEARS, A. & F.	Transparent Soap	14
PETERSON & CO.	Sponge	40
PHILLIPS & SON	Dandelion Coffee	91
PICKERING, J., & SONS	Polishing Paste, &c.	45
PLUMBAGO CRUCIBLE CO.		48, 88
PRATT, H. J.	Siddall's Beetle Powder	88
PROCTOR, G. H.	New Cure for Intemperance	25
PULVERMACHER J. L.	Galvanic Chain Bands, &c.	53

(R)

RANDALL & SON	Black Currant Lozenges	108
RANDALL, SLOPER & CO.	Aërated Waters	102
RAYNER, L.	Shop Filter, &c.	83
RHODES, J.	Curative Mixture for Dogs	89
RICHARDSON, J., & CO.	Soluble Pearl-Coated Pills	66
RIMMEL, E.	Perfumery	36
RITCHIE & POPE	Analysed Tea	TEXT, 446
ROBBINS & CO.	Specialities	64
ROBERTS & CO.	Foreign Chemists	57
ROBINSON, B.	Dental Syringes, Corn Solvent Pencils, &c.	44
ROBINSON & SONS	Flax and Cotton Lint	75
ROBSON	Rheumatic Mixture, &c.	28
RUBECK, H.	Oleum Caryoph.	61

(S)

SALTER, G.	Perfumery, &c.	42
SANGER & SONS	Patent Medicines, &c.	54
SAVARESE	Sandal Wood Oil Capsules	59
SAVORY & MOORE	Special Preparations	52
SCHMEDES & CO.	Sarg's Glycerine, &c.	46
SCHOOL OF PHARMACY, BLOOMSBURY SQUARE		20
SEABURY & JOHNSON	Porous and Spread Rubber Plasters	109
SILICATED CARBON FILTER CO.		39, 106, 107
SILVERLOCK, H.	Druggists' Price Book	22
SLATER BROS.	Horse and Cattle Condiment	89
SMITH & GIBB	Pure Spirits of Wine	39
SMITH, W. F.	Dandelion Antibilious Pills	76
SNOOK, G. F., & SON	Corn and Bunion Plasters	36
SOLPORT BROS.	Felt Corn and Bunion Plasters	52
SOUTHALL BROS. & BARCLAY	Al Cod-Liver Oil	21
SOUTH LONDON SCHOOL OF PHARMACY	W. Baxter, Sec.	59
STANTEN & BECKER	Amber Varnishes	446
STEDMAN	Teething Powders	TEXT, 446
STEVENS, P. A.	White Gutta Percha Enamel	40
STRACHAN, B. (SHANGHAI)	British Dispensary	58
SUSSEX DRUG CO.	Cobden's Quinine and Phosphorus Pills	8
SUTTON & PHILLIPS	Sporokton Disinfectant	86
SYMES & CO.	Araroba—Luc Bismuthi—Ol. Lavend. Rect.	64, 74

(T)

TAYLOR, T. & F. J.	Aërated Waters	42
TEA SUPPLY ASSOCIATION		94
THOMPSON & CAPPER	Homœopathic Chemists	83
THOMPSON, H. A.	Liquor Preparations	65
TOMLINSON, R.	Shop Filter and Valuer	84
TOOMEY, M. E.	Surgeon Dentist	25
TOWLE, A. P.	Chlorodyne Lozenges, &c.	82
TREBLE, G., & SON	Shop Fittings, &c.	85
TRIPPIER, T.	Transfer Agent and Valuer	26
TULLY, J.	Teacher of Chemistry	20
TYLER, HAYWARD & CO.	Soda Water Machinery	98

(V)

VAN DUZER & RICHARDS	Bay Leaf Water, &c.	29
VICHY NATURAL MINERAL WATERS		56

(W)

WALKER & DALRYMPLE	Tea Agency	88
WATSON, R. W.	Marking Ink	38
WATSON, J.	Foreign Chemist	58
WEST, THOMAS	Okell's Mona Bouquet	45
WESTMINSTER COLLEGE OF CHEMISTRY AND PHARMACY		23
WHEELER & CO.	"Lime Juice Saline"	105
WHITAKER & GROSSMITH	Perfumery	44
WHITE, A. J.	Mother Seigell's Curative Syrup, &c.	62
WILCOCKS, N. G.	Soda Water Machinery	97
WILSON, MRS.	Female Pills	76
WOODS, W.	Areca Nut Tooth Paste, &c.	40
WYLEYS & CO.	Wholesale Druggists	68

(Y)

YATES, W. S.	Chemists' Shop Filter	40
YOUNG & POSTANS	Phosphorised Cod Liver Oil	TEXT 446

(Z)

ZIMMERMANN, A. & M.	Agents for the Chemische Fabrik auf Actien, Berlin—Schering's Cellulose, &c.	70
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SEASON 1879-80.

REDUCTION IN PRICES.

CHEST PROTECTORS.

(Full Standard Sizes, Best Quality Scarlet or White Felt)

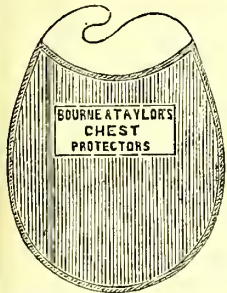


Fig. 1.

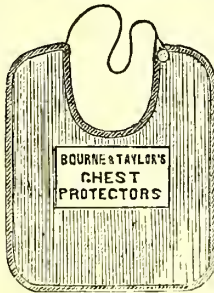


Fig. 2.

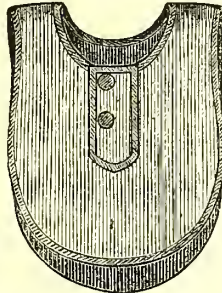


Fig. 3.

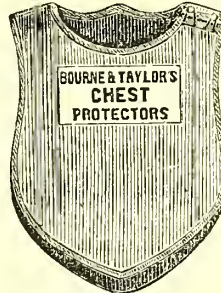


Fig. 4.

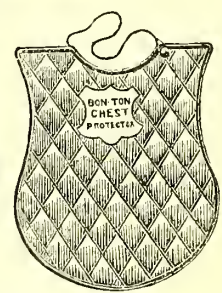


Fig. 5.

Fig. 1.—Red or White Felt, No. 0, 6/-; 1, 7/6; 2, 9/6; 3, 11/6; 4, 15/6 per doz.

Fig. 1.—Chamois Skin, Lined with Flannel, No. 0, 6/-; 1, 8/-; 2, 12/-; 3, 16/-; 4, 20/- per doz.

Fig. 2.—Ladies' Shape, Red or White Felt, No. 1, Size 11 by 11, 16/-; 2, 12 by 12, 20/-; 3, 13 by 13, 24/- per doz.

Fig. 3.—Vests, for the Chest and Back, Red or White Felt, No. 0, 27/-; 1, 36/-; 2, 42/- per doz.

Fig. 4.—Lung Preservers, Red or White Felt (these are cut out of one piece, and have no seam on the shoulder), No. 1, 19/-; 2, 25/-; 3, 32/-; 4, 38/- per doz.

Fig. 4.—Lung Preservers, Chamois Skin, lined with Flannel, No. 1, 20/-; 2, 28/-; 3, 36/-; 4, 45/- per doz.

Fig. 5.—The "Bon Ton," Quilted Satin, very handsome, No. 1, 18/-; 2, 21/-; 3, 24/- per doz.

Hare Skins, lined with Silk, 18/-, 21/- per doz.

Opossum ditto, 18/-, 21/-, 24/- per doz.

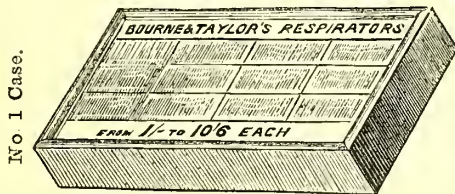
English Rabbit, 12/- per doz.

Labrador Fox, 16/- per doz.

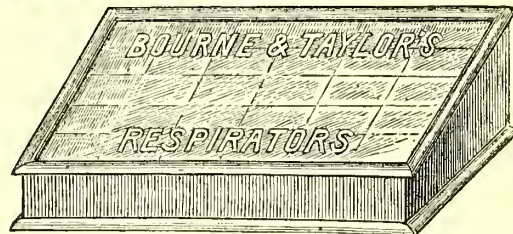
White Polish Rabbit, 18/-, 21/- per doz.

(B. & T.'s Chest Protectors are neatly put-up in Glass-top Boxes, containing One Dozen.)

RESPIRATORS.



No. 1 Case.



No. 2 Case.

The following assortment contains the leading Patterns:—

No. 1 Case—	Nos.	Producing retail	£	s	d
Two each, 1, 2, 3, 4,		Cost	£2	6	8
One ,, 5, 8, 10, 12, 14,		Less 10 per cent.	0	4	8
15, 17, 18, 20,			2	2	0
21, 22					
		Showing a PROFIT of	£2	3	6



No. 2 Case—	Nos.	Producing retail	£	s	d
Six each, 1, 2, 3, 4,		Cost	£5	18	2
Two ,, 5, 6, 8, 10, 12, 17,		Less 10 per cent.	0	11	10
18, 21, 22			5	6	4
One ,, 7, 9, 11, 13, 14, 15,					
16, 20, 23, 25					
		Showing a PROFIT of	£5	12	2

No.	Description	Shape	Retail Price	Wholesale Price
1.	The Shilling Respirator	Oval	1/-	0 8 0
2.	Metallic, Cotton Velvet Pads	"	2/-	0 12 0
3.	" Silk Velvet Pads	"	2 6	0 18 0
3A.	Silver-plated Wire, Silk Velvet Pads	"	2 6	0 18 0
4.	" " " "	"	3/-	1 1 0
5.	" " " "	"	4/-	1 8 0
5A.	" " " Without Ends	"	3 6	1 4 0
6.	" " Elastic Silk Mouthpiece	"	4/-	1 10 0
7.	Gold-plated " Silk Velvet Pads	"	7 6	2 8 0
8.	Three-fold Silver-plated, Velvet Pads and Silk Mouthpiece	"	6/-	1 16 0
9.	" Gold-plated	"	7 6	2 8 0
10.	The Aërial Respirator, Silver-plated, Ladies'	Oval	5/-	1 10 0
11.	" " Gold-plated	"	6/-	2 2 0
12.	" " Silver-plated, Gents'	"	6/-	1 16 0
13.	" " Gold-plated	"	7 6	2 8 0
(The Aërials may be had covered with black or drab.)				
14.	Gold-plated Wire, full size	"	7 6	2 8 0
15.	Gold-plated, full size	"	7 6	2 8 0
16.	Orininal, Silver-plated Wire	Square	4/-	1 10 0
17.	Ladies' Miniature, Silver-plated	Oval	5/-	1 10 0
18.	" " Gold-plated	"	6/-	2 2 0
19.	The Manifold Respirator, of variable power, containing six Metallic Plates, four of which are movable, Gold-plated	Square	10 6	3 12 0
20.	Ditto ditto ditto ditto ditto ditto	Oval	10 6	3 12 0
(The Manifold Respirator may be worn with or without plates a and b.)				
21.	Gents' full size, Silver-plated	"	5/-	1 10 0
22.	" " Gold-plated	"	6/-	2 2 0
23.	The Cotton-wool Respirator, Silver-plated	Orininal	5/-	1 16 0
24.	" " Gold-plated	"	8 6	3 0 0
25.	" " " "	Oval	5/-	1 16 0
(As recommended by Professor TYNDALL.)				

Nos. 1, 2, and 3 Contain 1 Metallic Plate. | Nos. 7, 8, 9, 12, 13, 14 and 15 Contain 3 Metallic Plates.
 ,, 4, 5, 6, 10, 11, 16, 17, 18, 21, 22, 23, 24, & 25 2 ,, Plates. | ,, 19 and 20 6 ,, ,,

BOURNE & TAYLOR, 35 Castle St., Holborn, London, E.C.

PHOENIX ESTABLISHED A.D. 1815 **MARKING INK**
GENUINE INDELIBLE
 THE LEADING & **STANDARD ARTICLE**
 PREPARED ONLY BY THE WIDOW OF THE LATE
JOHN MURPHY
 CHEMIST AT THE ORIGINAL ESTABLISHMENT
 11, NILE STREET, EAST ROAD, HOXTON, N.
NO OTHER ADDRESS — BEWARE OF WORTHLESS IMITATIONS.

G. F. SNOOK & SON, Wholesale & Export Manufacturers.

SNOOK & SON'S ARNICATED FELT CORN & BUNION PLASTERS.

SNOOK & SON'S WHITE-SPREAD CORN & BUNION PLASTERS.

SNOOK & SON'S Pure Starch Violet Powder, each Packet, with guarantee, in Show Boxes for the Counter.

SNOOK & SON'S 1d., 3d., and 6d. FULLER'S EARTH.

SNOOK & SON'S "INSECTO," the most effectual exterminator of all kinds of Insects, 3d. and 6d. for Show Boxes for the Counter.

Any of the above goods may be had through all Wholesale Houses. Price Lists or Samples free per post on receipt of Business Card.

SPECIAL QUOTATIONS TO LARGE BUYERS.

376 CITY ROAD, LONDON, E.C.

RIMMEL'S NEW SANITARY APPLIANCES.



RIMMEL'S AROMATIC OZONIZER, a fragrant powder which, simply spread on a plate in apartments or places of public resort, evolves the refreshing and healthy emanations of the Pine and Eucalyptus, and produces a quantity of *Ozone*, the great air purifier. It is in use in the principal Hotels, Clubs, and Theatres, and also in the Saloons and Cabins of several Lines of Steamships. In 4 oz. tins, 1s.; by post for 15 stamps; 1 lb. tins, 3s. 6d.; Spreading Plate, 6d.

RIMMEL'S OZONIZED PERFUMERY.

Dr. DAY, of Geelong, who has devoted much time and attention to sanitary questions, has discovered that alcoholic perfumes form excellent vehicles for diffusing ozone in the atmosphere and destroying noxious emanations and miasma. At his suggestion, E. Rimmel has prepared a series of Toilet Waters (Eau-de-Cologne, Lavender, and Florida), which are oxygenated by a chemical process, and evolve a quantity of *Ozone*. They are strongly recommended to be used on the handkerchief when attending crowded places, visiting the sick, or travelling by land or sea; also to be sprinkled on beds or carpets, or on a pad hung up in the air. Dr. Day writes to E. Rimmel (November 28, 1877):—"In manufacturing and making known the hygienic value of oxygenated perfumery you will be conferring a great benefit to the public, for it is the best means of disinfecting bedrooms, closets, &c.

PRICES:—Rimmel's Ozonized Eau-de-Cologne } 4 oz. round bottles . . . 2s. 6d.
 Rimmel's Ozonized Lavender Water } 8 do. do. . . . 5s. 0d.
 Rimmel's Ozonized Florida Water } 16 do. do. . . . 9s. 0d.

Sanitary Pads to be impregnated with the above and hung up in the air, 1s. The usual allowance to the Trade. Wholesale Lists on application to

EUGENE RIMMEL, Perfumer by Appointment to H.R.H. the Princess of Wales,
96 STRAND, LONDON.

WHITE AND SOUND TEETH.

JEWSBURY AND BROWN'S ORIENTAL TOOTH PASTE.



This old-established and increasingly favourite Dentifrice has been Forty Years before the Public. It is warranted to retain its properties and keep in good condition in any climate.

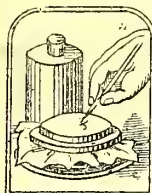
The original and only genuine is manufactured solely by

JEWSBURY and BROWN,
CHEMISTS, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is annexed. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are offered.

Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address card, and directions for enclosure.

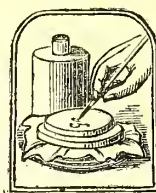


GREAT REDUCTION OF PRICES.

6d. and 1s. PEDESTALS, Glass Cases included.

20 per cent. off £100 Orders.

10 " " " £50 "



CAUTION

I AM DETERMINED TO PREVENT IN ALL CASES EVERY COLOURABLE IMITATION TO PROTECT MY RIGHTS & PROPERTY

WRIT OF INJUNCTION GRANTED NOV. 28, 1877.

COMMON PLEAS DIVISION,
JAN. 15.

(Sittings before Lord Coleridge and
Justice Grove and Denman.)

HICKISSON v. ASHTON.

Defendant moved for a NEW
TRIAL.

Application REFUSED.

This action, which was brought for the alleged infringement of the Plaintiff's Trade Mark, was tried at the last sittings at Guildhall, before Mr. Baron Cleasby, when the verdict was for the Plaintiff with damages.

The PLAINTIFF was the HUSBAND of the DAUGHTER of the late JOHN BOND, the PROPRIETOR of BOND'S CRYSTAL PALACE MARKING INK. The Defendant was a Druggist, and he had sold a Marking Ink manufactured by a Mr. Murphy, and the Plaintiff complained that the Labels on Murphy's Ink were an infringement on his Labels. A TRADE MARK is not only a SYMBOL or CHARACTER, but the general appearance of a label, whereby the public would be deceived.

Their Lordships this morning, after consulting Mr. Baron Cleasby on the matter, refused the rule, that learned judge having expressed his satisfaction with the verdict.—RULE REFUSED. Vide daily papers.

ANOTHER GOLD MEDAL AWARDED, PARIS ACADEMIE,

For Merit and Superiority of Finish, 2nd Award.

PRIZE MEDAL, PARIS, 1878, 2ND AWARD.

3 Gold and several Silver and Bronze Medals.
Hon. Mention, Paris, 1878.

PRIZE MEDAL AND GRAND DIPLOMA,
8 Medals.] PHILADELPHIA EXHIBITION, 1876. [7 Diplomas.

PURVEYOR TO THE LORDS COMMISSIONERS OF THE ADMIRALTY.

CAUTION.—The only GOLD Medal Marking Ink. Gold and Silver Medals and Diploma, Silver Medal and Diploma, London. Prize Medal, Lyons, Certificate of Merit, signed Albert Edward, Prince of Wales; and Dublin Diploma, Marking Ink Maker under Royal Warrant to Her Majesty the Queen and Court of Holland.

GOLD MEDAL, SOUTH AFRICA, 1877.

HONOURABLE MENTION and ESPECIAL NOTICE from the FRENCH PRESIDENT and H.R.H. the PRINCE OF WALES, Paris Exhibition, 1878.

HONOURABLE MENTION and DIPLOMA awarded by the JURORS, 1878.

SECOND GOLD MEDAL awarded by the PARIS ACADEMY, 1878, for Merit and Superiority of Production.

J. HICKISSON, Proprietor of the Daughter of the late John Bond's Crystal Palace Marking Ink, 75 Southgate Road, London,

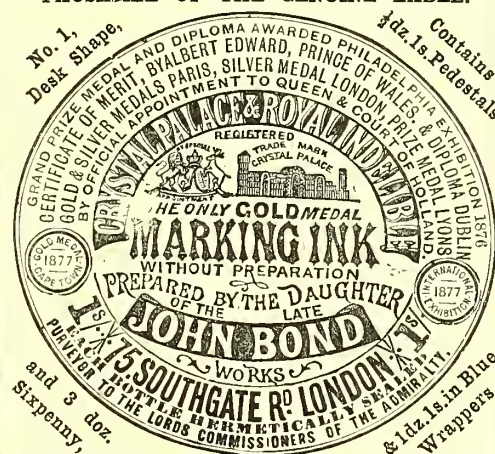
BOND'S MARKING INK.

CAUTION to Wholesale and Retail Vendors.—TAKE NOTICE that on Nov. 26th, 1877, IN AN ACTION "HICKISSON & ANOTHER against MURPHY" JUDGMENT was given for PLAINTIFFS, WITH DAMAGES AND COSTS, AND A PERPETUAL INJUNCTION GRANTED RESTRAINING the said MRS. MURPHY and her AGENTS FROM USING the word "BOND" upon any labels or pedestals manufactured by or for her, OR FROM IN ANY WAY REPRESENTING THE INK MANUFACTURED BY HER TO BE BOND'S MARKING INK.

GRANTED NOV. 28, 1877.

- 6d. Bottles in Round Blue Cases (Grand Show Card enclosed with each Packet of one dozen) ... 30s.
1s. Do. do. do. (Handsome Show Card enclosed with each dozen) ... 60s.
6d. Round Blue Wrapper upon Show Card of one dozen ... 30s.

FACSIMILE OF THE GENUINE LABEL.



Blue Wrappers. Black and White Oval Label.

DEAR HICKISSON, — Send on receipt the £200 order, as we are much increasing our trade by pushing your Ink in place of useless Novelties, as some other Wholesale Houses are sending other Makers', and thereby the Retail are closing their accounts. The 50 No. 1 Glass Cases are sold. Repeat order immediate.—Yours,
BROWN & CO.

29/4/78.

No Heating Required if allowed to remain three hours previous to Washing.

Where are the thousands that have expended and One would be Makers entirely lost large sums in trying to oppose this old-established preparation? Chemists, return all others forced upon you, and do not offend a Customer by sending a would-be substitute.

Have you seen the New Black and Gold Glass Cases with Hinged Black and Gold Framed Linen Specimen of the Crystal Palace with elaborate GOLD Mounts?

No Business transacted on Saturdays.

- No. 2 CASE, containing 3 doz. 1s., Crystal Palace and Royal Indelible, Blue Wrapper, Black and White Oval Label, old style. 16s. each.
No. 3 CASE, containing 1 doz. 1s., Crystal Palace and Royal Indelible, Blue Wrapper, old style, and 2 doz. 6d., do. do. 11s. each.
No. 4 CASE, containing 3 doz. 6d., Crystal Palace and Royal Indelible, Blue Wrappers, Black and White Oval Label, old style. 8s. 6d. each.

CAUTION WILL PROSECUTE IN EVERY CASE OF MISREPRESENTATION OR COLOURABLE IMITATION

No Business transacted on Saturdays.

Erhardt & Co.
 9, Bond Court, WALBROOK.
 LONDON, E.C.

Manufacturers of * * * * *

Patent Parchment,
 SOFT ELASTIC, White or Coloured, for tying
 over Drugs, Preserves, &c. CAPPING and
 CORKING Bottles of Chemicals, &c. &c.

White Split Skins,
 Best quality only, for CAPPING Bottles,
 from 7/6 to 20/- per doz. Also Coloured Splits.

Transparent Skins,
 In different qualities, for CAPPING Bottles.

Tinfoil, Chemically Pure and Polished
 made in any thickness from 15
 to 90 square feet to the lb. Also Mixed
 Foil, Coloured and Gold Foil, plain or embossed.

Metallic Capsules.
 Also Tinfoil Papers, Gold, Silver, Fancy
 or Capping Papers, as used by Chemists, &c. &c.
 Capsuling Machines 35/- each.

Field & Tuer, ye Leadenhalls Presse, London, E.C. 72 708

LUXURIANT HAIR.

PETROLINE

(REGISTERED)

HAIR CREAM

THE MOST POWERFUL OF HAIR PRODUCERS

It causes the Hair to grow on Bald Spots, by nourishing and vitalising the capillaries, and is the *only preparation* which specially acts on the Roots of the Hair. It preserves and prevents the Hair from falling off, and removes dandruff; allays all irritating sensations, and imparts a richness, lustre, and softness unapproached by any other preparation. As a Hair Dresser, Preserver, and Producer it is unequalled. Retail price, 3s. 6d. per Bottle (cased). To the Trade, 27s. per dozen, less 10 per cent. Handsome Show Cards and Bills with each order.

DR. DELORME'S

AMA ROSA

(REGISTERED)

TOOTH PASTE

IN COLLAPSIBLE TUBES AND GLASS TOP BOXES.

The quantity contained in these Tubes is greater than a Pot of corresponding price. Retail, 6d. and 1s. each. Special quotation, 3s. 3d. and 6s. per dozen net. Cards and Bills with every package.

Sole Proprietors—**NERWICH & CO.,**
 WYNNE ROAD, BRIXTON, LONDON, S.W.

The Proprietors are prepared to treat for spaces in Price Lists. Terms on application.

THE BEST GOT UP AND MOST SALEABLE SHILLING MARKING INK IN THE TRADE.

It keeps its Colour and will not injure the most delicate fabric.



- No. 1.—PETERS' ARGENTUM, contains usual size Bottle of Ink, Pen, and New Square Stretcher.—Price 1s.
 No. 2.—PETERS' ARGENTUM, contains Larger Bottle of Ink and Pen.—Price 1s.
 No. 3.—PETERS' ARGENTUM, contains Bottle of Ink, equal to 12 of No. 1, or 8 of No. 2.—Price 5s. per case.

SOLE PROPRIETOR AND MANUFACTURER—

R. W. WATSON, Chemist,
 22 ANGEL STREET,
 SHEFFIELD.

**HUNT'S
 PAPER
 BOTTLE
 CAPS.**

THE OLD Style and THE NEW

PLEATED BY
 PATENT
 MACHINERY.
 SOLD BY ALL
 DRUGGIST'S AND GROCERIES
 & Manufactory,
 LONDON

3, 4 and 5 Little Windmill Street, Golden Square.

RECTIFIED SPIRITS OF WINE

One Quality only—Finest BRITISH SPIRIT.

Not less than 2 Gallons, 56° o.p., 20/6; 60° o.p., 21/0 per Gallon.

" " 6 " 56° o.p., 19/9; 60° o.p., 20/3 " "

FOR CASH ON DELIVERY ONLY. COUNTRY ORDERS MUST CONTAIN A REMITTANCE.

HENRY BRETT & CO.,

OLD FURNIVAL'S DISTILLERY, 26 & 27 HIGH HOLBORN, LONDON, W.C.

PURE GOLD COLOURED
SHERRY FOR MEDICATION,
FREE FROM ACIDITY.

A. £12 10 0 per Quarter-Cask of 27 Gallons.
B. £11 5 0 " " "
C. £10 0 0 " " "

OCTAVES IN PROPORTION.

8s., 9s., and 10s. per Gallon in smaller quantities.

RAILWAY CARRIAGE PAID.

Brilliant and fit for immediate use. Casks and Jars to be returned or paid for. 2½ per cent. discount for Cash.

A SAMPLE UPON APPLICATION TO

ROBERT GRAY, Wine Merchant,
6 MOORGATE ST., LONDON, E.C.

PURE SPIRITS OF WINE

FOR
TINCTURES, ESSENCES, PERFUMES, &c.,

OXFORD ROAD DISTILLERY, MANCHESTER.

MESSRS. SMITH & GIBB

Beg to call the attention of CHEMISTS and DRUGGISTS to the under-mentioned Prices of Pure Spirits of Wine:—

Strength per cent.	Specific Gravity.	Price per gallon.
63 over proof ..	0.8238 ..	21/0
60 " ..	0.8298 ..	20/8
55 " ..	0.8366 ..	20/2
50 " ..	0.8482 ..	19/6

Special quotations for large quantities.

Terms—Cash on Delivery. Jars to be returned or paid for.

Orders from the country must be accompanied with a remittance, including the price of the Jars, which are charged as follows:—2 galls. 3/-; 3 galls. 3/6; 4 galls. 4/-; 6 galls. 4/-. When the empties are returned the money will be repaid. Can be had free for exportation.

BURROUGH'S

SPIRITUS RECTIFICATUS, P.B.

CHEMICALLY PURE SPIRITS OF WINE.

The Best English Grain Spirit, Free from Fusel Oil.

60 over proof, 20s. 6d. per gallon; 56 over proof, 20s. per gallon; less 6d. per gallon for five gallons. Lower quotations for quantities. Cash on delivery or with order. Packages charged, and money repaid when empties returned, 2s. 6d. for two gallons; 5s. for five gallons. Country Orders must contain remittance or reference to London House.

CALE STREET DISTILLERY, LONDON, S.W.

Also Duty Free for Exportation.

1/6 JUDSON'S 1/6 GOLD PAINT.

{ 1 Bottle Gold Powder	} 12s. per dozen sets. Six sets on a card, or each set in card box.
{ 1 " Mixing Liquid	
{ 1 Mixing Bowl	
{ 1 Brush	
{ 1 Bottle Gold Paint	} 10s. 6d. per doz. sets. Six sets on a card, or each set in card box.
{ 1 " Mixing Liquid	

For regilding picture and glass frames.
For gilding lamp stands and gas-fittings.
For renewing ormolu ornaments.
For illuminating on paper, silk, or leather.
For artistic cabinet work.
And for a thousand useful and domestic purposes.

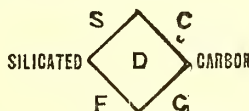
INDEX TO ADVERTISEMENTS,

See Pages 33 & 34.

Dr. C. R. Coffin's AMERICAN DENTIFRICE.

Prepared only by WILLIAM DARLING, Chemist, Manchester. May be had from S. Maw, Son, & Thompson; Barclay & Sons; F. Newbery & Sons; Sanger & Sons; and any Wholesale House in London. Price 2s. per Box, and Family Jars 10s. each.

SILICATED CARBON FILTERS.



Prize Medals—PARIS, 1867. HAVRE, 1869.

ADOPTED, IN PREFERENCE TO ALL OTHERS, by the Admiralty, and used in the General Post Office, the London and Provincial Hospitals, and many Public Establishments in various parts of the World.

SILICATED CARBON FILTER COMPANY,

CHURCH ROAD, BATTERSEA, LONDON.

AWARDS:
London and
Vienna
Exhibitions

Wood Stains,

AWARDS:
London and
Vienna
Exhibitions

IN LIQUID AND POWDER.

Packed in 1-lb., ½-lb., ¼-lb., and 2-oz. Boxes, ½-pint 6d. Bottles, and bulk.

Specimen Boards and Circulars supplied when ordered.

MANUFACTURER,

THOMAS S. JACKSON,

199 BOROUGH, LONDON, S.E.,

And of all Patent Medicine Warehousemen. Write for New Price Lists of Oil and Spirit Varnishes, Colours, Paints, &c.

SPONGE.

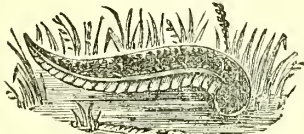
M. PETERSON & CO., Importers.

66 SOUTH JOHN STREET,

LIVERPOOL.

For Home, Foreign, and Colonial Markets.
Wholesale only.

HAMBRO SPECKLED.



TRADE MARK
REGISTERED.

All Orders by Post receive immediate attention.

LEECHES!

Warranted Healthy, Wholesale and for Exportation, Direct from Marshes.

FITCH & NOTTINGHAM,
Leech Breeders,

MARSEILLES, & 55 PENTONVILLE
ROAD, LONDON, N.

TRADE MARK



To be obtained of all Wholesale Houses. Price List and Samples sent post free.

SPECIAL NOTICE.—The words **SILVER WHITE GUTTA PERCHA ENAMEL** are registered as a Trade Mark, and will be protected.

TRY IT! SPANISH

In Bottles,

Unrivalled for RESTORING HAIR, RENEWING, CLEANSING, THICKENING, and PREVENTING the Hair

Of Messrs. Low & Haydon, 330 Strand, London; Barclay & Sons, 95 Farringdon Street, London; of any Chemist or Hairdresser; or of A. P. Muddiman, Leighton Buzzard, Beds.

IT NEVER FAILS! WASH!!

2/6 & 5/- each.

from FALLING OFF or Turning Grey, instantly removing all Scurf or Dandruff, leaving the skin pure and healthy.



EWENS' CLARIFIED LARD, MARROW, SUETS, AND OILS.

JAMES EWEN & SONS are induced to give further publicity to these articles, the continued demand by all who have used them being satisfactory proof "that where purity of basis" in ointments, &c., is required, they are most desirable.

By their method of purifying, the fats are not chemically altered, but simply divested of all particles tending to decomposition, they are consequently available for the most delicate preparations.

Adeps. Benz. B. P. and Pharm. Lard (*vide* P. J. Vol. I., No. 8). Direct, "for Cash only," from

JAMES EWEN & SONS' CLARIFIED FAT WORKS,
5 HATFIELD STREET, STAMFORD STREET, S.E.;
Or through any of the Wholesale Houses, with their usual credit, at a small advance.

CAUTION.—See that each package bears their label with name and weight.

ROUND AND OVAL CHIP AND WILLOW BOXES,

WARRANTED TO STAND ALL CLIMATES.

Of any size, in the very best quality that can possibly be made.

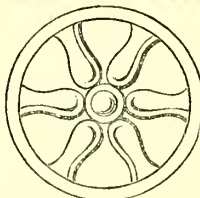
LARGE STOCK KEPT IN LONDON.

Only the Trade supplied.

Every large buyer of these goods should compare my samples and prices before ordering elsewhere.

PAUL METZ,

MANUFACTURERS' AGENT,



Please observe my

REGISTERED TRADE MARK,

And see that every Parcel bears the same on the LABEL AS GUARANTEE,

As for obvious reasons many bad foreign productions are being brought into the market.

217 UPPER THAMES STREET, LONDON, E.C.

Bankers—London and Westminster Bank, Lothbury, E.C.

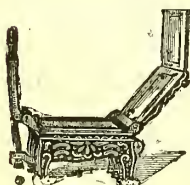
W. S. YATES,

Chemists' Shop Fitter, Shop Front Builder,
and Glass Show Case Maker.

PLANS AND ESTIMATES SUPPLIED FOR WORK IN ANY PART OF THE KINGDOM.

9 CAMDEN STREET LIVERPOOL.

INTERNATIONAL EXHIBITION, 1870.
283, CLASS 3.



Every Man his own Printer
PRINTING PRESSES (all Iron) 25s.
complete, to £10 10s.

Specimens of Work, One Stamp.
Inventor

JABEZ FRANCIS, Rochford, Essex.

Type and Materials for Amateurs.

Amateur's Guide, 64 pp., 13 stamps.

WOODS' ARECA NUT TOOTH PASTE.

For Removing Tartar and Whitening the Teeth, without injuring the Enamel. Sold in Pots, at 6d. and 1s. each.

WOODS'

QUININE, CANTHARIDINE, & ROSEMARY HAIR CREAM

(WITH GREASE). Restores the Hair if weak or falling off.
Price 9d., 1s. 6d. and 3s. 6d. per bottle.

WOODS'

QUININE, CANTHARIDINE, & ROSEMARY HAIR WASH

Similar to the above (without grease). Price 1s. 6d. and 3s. 6d. per bottle.

WOODS' DANDRUFF POMADE.

Never fails. 1s. per pot.

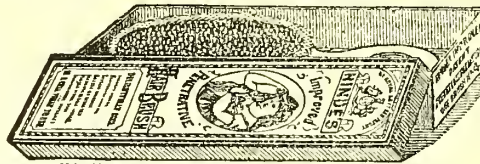
Proprietor: W. WOODS, M.P.S., Chemist, Plymouth.

SOLD WHOLESALE BY ALL LONDON HOUSES.

HINDE'S PATENT WIRE HAIR BRUSH.

Silvered Wires and Rings of Bristle.

Admittedly the only perfect Wire Brush in the market. Made in a variety of prices and patterns. Beware of other Wire Brushes



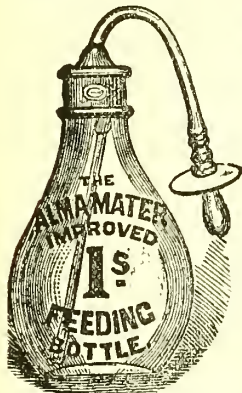
EACH BRUSH PACKED IN A SEPARATE BOX.

which, with TINNED Wires, are claiming the speciality of the "Silvered Wire Brush," without its value and advantages.

Patronised by H.R.H. the Prince of Wales; H.I.H. the late Louis Napoleon; the Rt. Hon. W. E. Gladstone, M.P.

CHEAPER AND MORE DURABLE THAN BRISTLE; PLATED WIRES, AND WILL NOT SCRATCH.

To be had of all Important Wholesale Houses in London, Birmingham, Manchester, and Glasgow.



GLASS BOTTLES, GASOGENES, SYPHONS, &c.

REDUCTION.
ROUND SHOULDER OR LIME JUICE BOTTLES.
1 1 1 2 3 4 6 8 10 12 16 20 oz.
3/6 4/- 4/6 5/6 6/6 7/6 9/- 11/- 14/- 16/- 19/- 21/- grs.
BEST KALI OR CONFECTIONERS' BOTTLES.
4 6 8 10 12 20 oz.
8/- 10/- 12/- 15/- 18/- 24/- gross.

BEST STOPPERED BOTTLES (all kinds), 1/2 oz. to 20 oz., 15s. to 60s. gross.

BEST QUALITY GREEN FLINT DISPENSING BOTTLES, Vial Lips, Flat or Oval, 3-oz. & 4-oz., 7s. 6d.; 6-oz. & 8-oz., 8s.; 10-oz. & 12-oz., 14s. per gross. GLASS SYRINGES, BEST QUALITY, 1/2-oz., 14s.; 1-oz., 18s.; 2-oz., 27s.; 4-oz., 49s. per gross.

HIGGINSON'S ENEMAS. Green, Red, or Black, in sliding Cedar Boxes, with Gum Elastic Vagina Pipe, 25s. per dozen for an order of six dozen or upwards.

All and every kind of Bottle made. Special prices given for any particular pattern. Special quotations to large buyers.

BEST WHITE FLINT OVAL DISPENSING OR PERFUMERY BOTTLES.

2 oz., 6/-; 3 oz., 7/6; 4 oz., 7/6; 6 oz., 9/-; 8 oz., 11/- per gross.

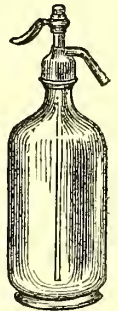
FEEDING BOTTLES. (If in large quantities.) Best Green Glass, one dozen in a box, 28s. grs. Best White 29s.

1s. Feeding Bottle, one in a box, with brush, &c., complete, 50s. gross.

GLASS SYRINGES, BEST QUALITY, 1/2-oz., 14s.; 1-oz., 18s.; 2-oz., 27s.; 4-oz., 49s. per gross.

HIGGINSON'S ENEMAS. Green, Red, or Black, in sliding Cedar Boxes, with Gum Elastic Vagina Pipe, 25s. per dozen for an order of six dozen or upwards.

All and every kind of Bottle made. Special prices given for any particular pattern. Special quotations to large buyers.



JONAS & JULES LANG, GLASS WORKS, ALSACE & LORRAINE.

Showrooms—13 Charterhouse Buildings, Aldersgate Street, London, E.C., and 28 Rue Notre Dame de Nazareth, Paris.

G. SALTER & CO.

(PARTNERS, G. SALTER & F. S. STARK),

WHOLESALE PERFUMERS

And FANCY BRUSH MANUFACTURERS,

X Red Lion Square, London.
(ESTABLISHED 1830.)

SOLE AGENTS FOR

DR. STARTIN'S "MEDELA,"

OR ANTI-SCURF POMADE, 12s. dozen.

DR. LINCOLN'S HAIR RENEWER,

A NEW PREPARATION FOR RESTORING THE HAIR, WELL GOT-UP,

In Two Bottles in One Case, 24s. dozen.

TINGO COMA,

THE BEST DYE IN THE MARKET, 20s. dozen.

DR. LINCOLN'S

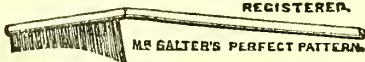
GALVANO-ELECTRIC TOOTH BRUSHES

(REGISTERED)

WILL RELIEVE TOOTHACHE, ETC.

Orders are now being booked at 9s. per dozen.

SOLE PROPRIETORS OF
REGISTERED.



DIRECT OR THROUGH ALL WHOLESALE HOUSES.

PURE AERATED WATERS.

MANUFACTURED BY

T. & F. J. TAYLOR, NEWPORT PAGNELL.

ESTABLISHED 1835.

Purity and Excellence of the Water certified by Analysis by PROFESSOR ATTFIELD, Ph.D., F.C.S.

NEWPORT PAGNELL SODA WATER, containing 10 grains of Bicarbonate of Soda in each bottle.

AERATED WATER, without Alkali.

POTASH WATER, containing 10 grains or 20 grains of Bicarbonate of Potash in each bottle.

LITHIA AND POTASH WATER.

SELTZER WATER, prepared according to Analysis of the Natural Water.

EFFERVESCING LEMONADE, superior in flavour colourless, and warranted to retain its brilliancy.

Each Bottle is protected by a Label bearing the Signature of the Firm.

ESTABLISHED 1836.

SEIDLITZ POWDERS.

WHOLESALE AND FOR EXPORTATION.

QUALITY AND STRENGTH GUARANTEED.

Put up in best style in Plaid Boxes, 6s. per doz. Fancy Gold ditto, 7s. Gold, Enamelled, and Embossed, best hinged ditto, Gold Labels, &c., 7s. 6d. per doz. Ginger Beer and Lemonade Powders, 5s. per doz. Soda Powders, 3s. Sherbet, 7-lb. Bags, 8d. per lb. Chlorodyne, 6s. per lb.; W. Qts., 5s. 6d.

THOMAS KNOWLES,
CHEMIST

40 SEYMOUR STREET, EUSTON SQUARE, LONDON, N.W.



TRADE MARK.

TRUSSES



TRADE MARK.

LYNCH & CO.

Have devoted particular care and attention to the manufacture of **TRUSSES** and other Instruments for the cure and alleviation of diseases and deformities. Every article is manufactured by skilled workmen, under the direction of an experienced foreman. L. & Co. can, therefore, with confidence guarantee each article bearing their name as the best of its respective kind.

Competent Assistants are employed, so that patients can be measured and fitted on the premises, or at their own homes, without any risk or annoyance to the Chemists.

LYNCH & CO. have introduced a new **TRUSS**, by which the pressure of the Pad on the Hernia can be *increased* or *lessened* at pleasure, and *the angle of the Pad with the spring* can be altered, so as to adapt the Instrument to the shape of the body and the situation of the Hernia.

The following are prices of Trusses in most general use:—

		Single.	Double.
LYNCH'S ADAPTABLE TRUSS, by which the pressure can be increased or lessened, and the angle of the Pad altered ...		£0 12 6	£1 5 0
FOR FEMORAL HERNIA—			
Circular Springs ...	per doz.	1 4 0	2 0 0
Ditto, with Narrow Springs, of superior make, very light and durable ...	per doz.	3 0 0	—
FOR INGUINAL HERNIA—			
Circular Springs, covered with basil and chamois, ordinary quality ...	per doz.	1 1 0	1 14 0
Ditto, covered with calf ...	"	1 16 0	2 12 0
Ditto, covered with morocco ...	"	1 16 0	2 8 0
Ditto, with Sliding Backs ...	"	—	3 3 0
Ditto, on Cole's principle ...	each	0 5 6	0 10 6
Ditto, Moc Main Lever ...	"	0 8 0	0 13 6
Ditto, on Salmon & Ody's principle ...	per doz.	1 16 0	3 12 0
Ditto, ditto, very superior finish ...	"	2 10 0	5 10 0
FOR PROLAPSUS ANI ...	each	1 0 0	and 1 10 0
FOR PROLAPSUS UTERI ...	"	0 17 6	and 1 10 0
Ditto, Hull's principle, with Lynch's improvement ...	"	15/-, 21/-, and	1 10 0
FOR SCROTAL HERNIA ...	per doz.	2 8 0	4 4 0
FOR UMBILICAL HERNIA, on Cole's principle ...	each	9/6, 12/6, and 17/6	
Ditto, on Salmon & Ody's principle ...	"	7/6, 9/6, and 12/6	
Ditto, plain ...	"	8/6	

Sizes 10 in. to 40 in. kept in Stock; large sizes made specially to order, with extra charge, according to size.

USUAL TERMS.

LYNCH'S IMPROVED BELT,

With Regulating Straps, by which the weight of the Abdominal Viscera is supported, and immediate relief given in cases of pendulous abdomen.

SUPERIOR ELASTIC STOCKINGS,

UMBILICAL BELTS, Instruments for every description of deformity, &c.

LYNCH'S "TEARABLE" LINT,

In 1-lb. Rolls, 1s. 8d. per lb.

Discount—10 per cent. Monthly, 5 per cent. Half-yearly.

LYNCH & CO., 171a & 171b Aldersgate Street, LONDON.

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WHITAKER & GROSSMITH'S PURE WHITE GLYCERINE SOAP.

Richly perfumed, and guaranteed to contain the necessary quantity of GLYCERINE for effectually imparting to the SKIN the softening and healing properties for which it is so justly famed.

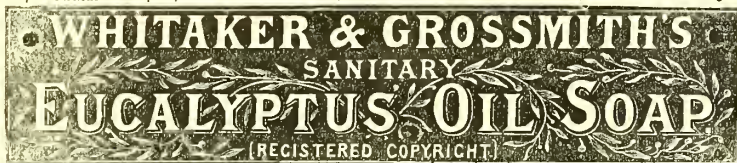
NECESSARY CAUTION.—This unrivalled Toilet Soap was originated by us in 1863, and solely by its superior merit and moderate price has now attained the patronage of a wide circle of all classes of society. As many (external) imitations of our saleable article are often falsely offered as the *real Soap*, all vendors should please note that the Box and Wrappers now bear our "Trade Mark," and not be misled by inferior counterfeits, thereby causing disappointment to purchasers, and consequent injury to the sale of the original and genuine Soap.

1s. 6d. Boxes of Three Tablets, 12s. per Dozen Boxes.

SELECT TOILET PREPARATIONS, extensively increasing in demand, which attests their excellent quality.

TOILET SOAPS. Per doz.			BOUQUETS. Per doz.			POMADES, &c. Per doz.		
<i>Cent-Fleur</i> (copyright)	2/6	Boxes of 3 tablets 20/	<i>Cent-Fleur</i> (copyright)			<i>Cent-Fleur</i> (copyright)	8/12	& 20/
<i>Jockey Club</i> "	1/6	" 12/	<i>Star of India</i> ...	In Glass	12/	<i>Petroleum Pomade</i> ...	12/	& 18/
<i>Musk Windsor</i> "	1/6	" 12/	<i>White Lilac</i> ...	Stoppered		<i>Brilliantine</i> ...	8/12	& 20/
<i>Sandringham</i> "	1/6	" 12/6	<i>Birthday</i> ...	or Sprinkling cap	18/	<i>Anglo Eau de Cologne</i>	8/	& 12/
<i>Eucalyptus Oil</i> "	1/6	" 12/	<i>Hawthorn</i> ...	Bottles.	24/	<i>Eucalyptus Vinegar</i> ...	12/	& 20/
<i>Semi-Cut Bars</i> "	1/	Bars of 6 kinds 8/6	<i>White Violet</i> (and 50 others)			<i>White Cherry Tooth Paste</i>	8/	& 12/

Highly recommended by the *Lancet*, *Sanitary Record*, and the *Medical Press* as an elegant Sanitary Toilet Soap for the Skin, with an aromatic disinfectant for the Apartment.



The Antiseptic properties of the *Eucalyptus Tree* are now fully retained by enclosing the Soap in tinfoil, and any of the old stock on hand will be exchanged for fresh free of cost.

The Standard says:—"As an antiseptic, *Eucalyptus Soap* has no rival."

1s. 6d. Boxes of Three Tablets. 12s. per Dozen Boxes.

Trade Price Lists sent and Orders executed through Wholesale Houses, or direct from the Manufacturers,

WHITAKER & GROSSMITH, Wholesale Perfumers, 120 Fore Street, City, London.

THE UNIVERSAL TOOTHACHE SYRINGE

Retail,
6d. each.



Wholesale,
4s. per dozen.

Is a great improvement upon the "DENTAL SYRINGE," as the fluid is contained in a glass bulb, which enables its contents to be seen, also prevents the liability to evaporation through long keeping or exposure.

THE UNIVERSAL CORN AND WART PENCIL.

1 doz. mounted on a handsome Illustrated Show-Card, Retail, 6d. each; Wholesale, 3s. 6d. per doz.

It is especially adapted for Export Trade, and may be safely sent to the hottest climates, as each glass tube is hermetically sealed and enclosed in a cardboard case.

N.B.—Both the above are exempt from Stamp Duty by permission of the Board of Inland Revenue.

"The EMPRESS of INDIA'S BOUQUET"

(Registered under the new Trade Marks Act),

A DELIGHTFUL, REFRESHING, AND FASHIONABLE PERFUME.

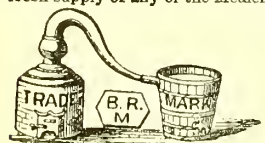
"Chemists may gratify their loyalty to their hearts' content by selling a perfume just introduced by Mr. B. Robinson, of Pendleton, Manchester, called 'The Empress of India's Bouquet.' The perfume is remarkably cheap, and is by no means lacking in richness. The shilling bottles are good sized ones, corked with the patent sprinklers, and decorated with a faithful likeness of the Empress alluded to."—Editor of *The Chemist and Druggist*, November 15th, 1876.

Sold in Bottles, at 1s. each, or Treble Size, 2s. 6d.; Wholesale, 8s. per dozen in 1-dozen cases, and 20s. per dozen in 1-dozen cases.

Prepared only by B. ROBINSON, Operative Chemist and Distiller, PENDLETON, MANCHESTER.

CONCENTRATED WATERS.—One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopœia, and free from all Chemical impurity. They are prepared to supply a want long felt by Chemists and Medical Men, and by their use a fresh supply of any of the Medicinal Waters may be obtained at a moment's notice. They are not affected by age in any climate.

N.B.—Used in the proportion of one part to thirty-two of water they represent the Medicinal Waters of the United States Pharmacopœia.



Per lb.		Per lb.		Per lb.		Per lb.	
Aqua Anethi, Concent.	4/0	AquaCinnam. Ver. Concent.	6/0	Aqua Fœniculi, Concent.	4/0	Aqua Pimentæ, Concent.	4/0
" Anisi, "	4/0	" Cassiæ "	4/0	" Menth Pip. "	4/0	" Rosæ "	8/6
" Camphoræ "	4/0	" Flor. Aurent. "	8/6	" Ang. Con. "	6/0	" Rosæ Virgin "	10/6
" Carui "	4/0	" Flor. Sambuci, "	8/6	" " Virid. "	4/0		

The above are put up in Bottles of 1lb. or 1lb. and upwards, each of which has the Inventor's Protection Label over cork.

Wholesale Agents—Hearon & Co., Maw, Son, & Thompson, Lynch & Co., London; Evans, Sons & Co., Ralms, Liverpool; Mather, Woolley, Manchester; Bewley & Draper, Dublin; Glasgow Apothecaries' Co., Hatrick & Co., Glasgow; Ralms & Co., Edinburgh; Forgitt, Thirsk; Goodall & Co., Leeds; Clarke, Bleasdale & Co., York; McKesson & Robbins, New York. Special terms for large quantities may be had from

B. ROBINSON, Operative Chemist, Distiller and Brewer of British Wines, Manchester.

ESTABLISHED 100 YEARS.

TOILET AND FANCY SOAPS
OF EVERY DESCRIPTION.

CHOICE PERFUMES IN BULK.

No. 1 extra 12/ per pint of 20 ozs.

No. 1 9/6 " "

No. 2 8/ " "

Put up also in great variety of size, style, and price.

SOAPS.

Zinc, Sulphur, Petroleum, 6d. & 1/

Petroleum, Juniper Tar, & 4/ & 8/

other Medicated Soaps .. doz.

Glycerine Jelly, 6d. and 1/

stoppered bots., 4/ & 8/

per doz.

T. F. BRISTOW & CO.
TOILET SOAPS & PERFUMERY.PRICE LISTS
ON APPLICATION.BRISTOW'S
SPECIALITIES.

Carbolic Acid Soap..... } In boxes 3 tblts.

Glycerine and Carbolic Acid } 1/ & 1/6

Glycerine and Oatmeal Soap .. } 8/ & 12/ per dz.

Baby Soap for Nursery use { In boxes, 4 & 12 tblts.

(Illustrated Label) } 9/ and 27/ per doz.

Family Soap, in boxes, 4 & 12 tblts (1/ & 2/9) 8/ & 24/ "

Cold Cream Soap, in boxes, 3 tbs. in box (1/6 & 2/6) 12/ & 21/ "

Stockholm Tar Soap } in boxes, 3 tablets in box (1/6) 12/ "

Pure Coal Tar Soap } in 4d., 6d. & 8d. tblts, in 3 doz. boxes, 2 6, 3 6, 4 6 doz.

Transparent Soap, in boxes 3 tablets (1/ and 1/6) 8/ & 12/ "

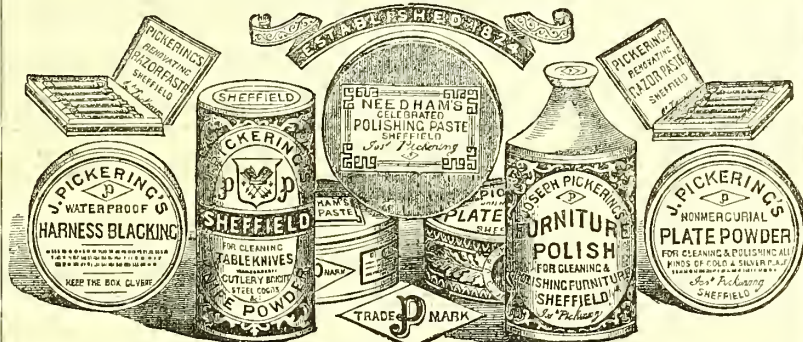
Superior Lavender Soap, in boxes, 3 tablets (1/ and 1/6) 8/ & 12/ "

White Glycerine Soap, in boxes, 3 tablets (1/6) 12/ "

Dog Soap (Illust Wrapper), Carpet & Cloth Soap, Pumice Stone Soap (6d. & 1/) .. 3 6 & 7 1/2 doz.

5 BISHOPSGATE AVENUE, LONDON.

DIPLOMA OF MERIT, VIENNA EXHIBITION, 1873.

Joseph Pickering & Sons (J. Needham), Albion Works, Sheffield,
Late
MANUFACTURERS OF

SOLD BY ALL CHEMISTS, GROCERS, IRONMONGERS, ETC.

Needham's

Polishing Paste,

For Cleaning Bras,
Copper, and Britannia
Metal Goods, &c.

Pickering's Razor

Paste,

For Sharpening Razors, &c.

Waterproof

Harness Blacking,

For Black Leather
Harness.

Sheffield Knife

Powder,

For Table Knives, Fire
Irons, &c.

Plate Powder,

For Electro-plated
Articles, &c.

Furniture Polish,

For cleaning French
Polished Furniture, &c.

Brunswick

Black,

For all kinds of
Iron Work.

H. BESSEMER'S GOLD PAINT,

RETAIL PRICES:—

Small Bottles of Gold with Liquid 1s. 6d.

Medium " " & Bowl & Brush 2s. 6d.

Large Bottles of Gold 3s. 6d.

" " Liquid 0s. 6d.

To be obtained of all Chemists, Artists' Colourmen, and
Druggists' Sundriesmen.

NEW 1/6 & 2/6 PACKETS.

CONTENTS:—1 Bottle Gold Powder, 1 Bottle Mixing Liquid,
1 Mixing Bowl, 1 Brush, in Cardboard Box.Where the Bowl and Brush are not required, the usual 1/6 Packet should
be purchased, as it contains a large quantity of both Gold and Liquid.A COPPER AND SILVER PAINT, AT THE SAME PRICES, AND YIELDING EQUALLY
GOOD RESULTS, CAN BE OBTAINED.

SOLE PROPRIETOR AND MANUFACTURER,

RICHARD J. ALLEN,

MANSFIELD PLACE, KENTISH TOWN,

LONDON, N.W.

If Translations are supplied, Circulars, Cards, or Labels will be printed in
any language necessary for its sale.**OKELL'S ORIGINAL
MONA BOUQUET**

Retail, 1/ 1/9, and 3/6; Wholesale, 9/ 15/ 30/ per doz.

This much-admired Perfume (prepared by the Widow of the late
Joseph Okell), may be obtained from the leading Patent Medicine
Houses, Wholesale Druggists, and Druggists' Sundry Dealers.Applications for WHOLESALE Agencies to be made to the SOLE
CONSIGNEE, THOMAS WEST, Chemist, Stretford,
Manchester.**Goddard's
Plate Powder**For more than a Quarter of a Century this Powder has sustained an
unrivalled reputation throughout the United Kingdom and the Colonies as
the BEST and SAFEST article for Cleaning Plate.

Sold in Boxes, 1s., 2s. 6d., and 4s. 6d. each. Also

GODDARD'S FURNITURE CREAM. Sold in Bottles, 6d. and 1s. each.

Sold by leading Wholesale Houses and Factors, and by the Inventor,

J. GODDARD STATION STREET, LEICESTER.

FOR CLEANING PLATE.

BRADLEY & BOURDAS'S

ALBATHUM or WHITE ROUGE,

For Cleaning Gold, Silver, and Plated Goods.

Since its introduction as a substitute for the ordinary Rouge,
a quarter of a century ago, the sale has amazingly increased
both at home and abroad. A trial is only needed to prove its
superiority over other plate powders in use. Sold in Boxes at
1s. and 2s.; Tins, 6s. 7 Pont Street, Belgrave Square,
and 48 Belgrave Road, London, S.W.

ALL ADVERTISEMENTS for the

CHEMIST AND DRUGGISTS' DIARY

For 1880

Must reach us not later than the 25th inst., when
we close for press.

OFFICE: 44a CANNON STREET, LONDON, E.C.

WHITE FELT CORN AND BUNION PLASTERS.

SOLPORT BROTHERS, 68 Shaftesbury St., New North Road, LONDON, N.
ESTABLISHED 25 YEARS.

SOLPORT BROTHERS are the ORIGINAL MANUFACTURERS of the only genuine White Felt Corn and Bunion Plasters.
WHOLESALE ONLY.

CRAWSHAW'S CRYSTAL DYES.

6d. BOXES CRAWSHAW'S CRYSTAL DYES In $\frac{1}{2}$ gross (7 doz.) Counter Case with Glass Lid.	} 48/- per gross.	2d. PACKETS CRAWSHAW'S USEFUL DYES Mounted on Cards of $\frac{1}{2}$ gross.	} 14/- per gross.	
6d. BOXES CRAWSHAW'S CRYSTAL DYES In Boxes of 1 doz. (14).	} 48/- per gross.	1d. PACKETS CRAWSHAW'S USEFUL DYES In $\frac{1}{2}$ gross Counter Case with Glass Lid.	} 7/- per gross.	
3d. PACKETS CRAWSHAW'S USEFUL DYES In $\frac{1}{2}$ gross Cardboard Boxes.	} 21/- per gross.	1d. PACKETS CRAWSHAW'S USEFUL DYES In $\frac{1}{2}$ gross Cardboard Boxes.	} 7/- per gross.	
3d. PACKETS CRAWSHAW'S USEFUL DYES Mounted on Cards of $\frac{1}{2}$ gross.	} 21/- per gross.	1d. PACKETS CRAWSHAW'S USEFUL DYES Mounted on $\frac{1}{2}$ gross Cards.	} 7/- per gross.	
2d. PACKETS CRAWSHAW'S USEFUL DYES In $\frac{1}{2}$ gross Cardboard Boxes.	} 14/- per gross.	THE EXCELSIOR PENNY DYES. Mounted on Cards of $\frac{1}{2}$ gross each. These Dyes are good value for the money; suitable for low-class Wholesale Trade, and where Cheap Goods are required. There is no Maker's Name on the Packets or Cards.		} 5/6 per gross.

EMERALDINE { A New Colour for Chemists' Show Bottles, which gives with transmitted light
a beautiful golden colour showing a splendid green fluorescence. } 2/6
per Bot.

E. CRAWSHAW & CO., 80 Fann Street, Aldersgate Street, LONDON, E.C.

NITROUS OXIDE GAS.

GEO. BARTH & CO.,

Manufacturers of Liquid Nitrous Oxide Gas and Anæsthetic Apparatus, &c.

AN ILLUSTRATED PRICE LIST SENT FREE ON APPLICATION.

26 DUKE STREET, BLOOMSBURY, LONDON, W.C.

F. A. SARG'S SON & CO.'S CHEMICALLY PURE GLYCERINES AND TOILET GLYCERINE ARTICLES.

CHEMICALLY PURE GLYCERINES.

Sarg's Double Distilled Glycerine, Chemically Pure,
30° Beaumé, in Cases of Four 56-lb. Tins each; Twenty 5-lb. Bottles, Fifty 1-lb. Bottles, and 100 $\frac{1}{2}$ -lb. Bottles,
with Registered Label.

Sarg's Double Distilled Glycerine, Chemically Pure,
In $\frac{1}{2}$ -lb. and 1-lb. Bottles, should have a place in every nursery on account of its salutary action on the heads of children,
relieving them from dandruff and the roughness of the scalp they are so commonly subject to.

Sarg's Distilled Glycerine, Chemically Pure, P.B.,

29° Beaumé, in Cases of Four 56-lb. Tins each.

Crude Glycerine, in Bulk.

TOILET GLYCERINE ARTICLES.

Transparent Glycerine Soap,

In registered Packets of three Tablets, 1s. Warranted to
contain 33% of the purest Glycerine. Also in round Tablets,
three in a Box; and in oval Tablets in paper.

Liquid Glycerine Soap,

Best preventive against chapped hands, 1s., and unrivalled
for imparting softness to them, and rendering them clean and
white. See Testimonials of Professor J. von Liebig, Baron;
and of Professor F. Wöhler.

Scented Glycerine,

In Bottles at various prices. Either pure or diluted with water,
this Glycerine is very successfully used for softening the skin,
preserving the complexion, and preventing the very unpleasant
roughness of the skin in cold weather.

Glycerine Cream

Is quite unequalled for imparting a fresh and healthy colour to
the lips and keeping them from chapping.

Sarg's new Carbolic Glycerine Soap,

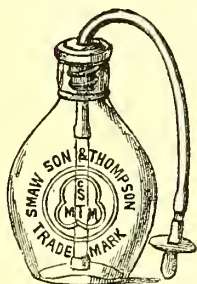
In Boxes of three Tablets, is highly recommended as a most effective disinfectant.

Sold by all Wholesale Chemists and Druggists.

Sole Wholesale Agents for the United Kingdom and the Colonies:

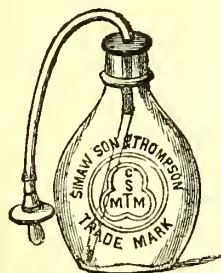
SCHMEDES, ERBSLOH & CO., 6 CASTLE STREET, FALCON SQ., LONDON, E.C.;
14 MARKET BUILDINGS, FLINDERS LANE, MELBOURNE; 26 O'CONNELL STREET, SYDNEY.

S. MAW, SON & THOMPSON'S FEEDING BOTTLES.



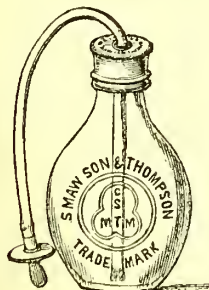
6d.

Export Feeding Bottle.
Screw Glass Stopper.



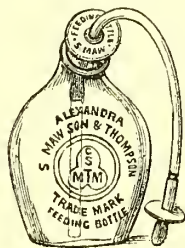
6d.

Export Feeding Bottle.
Wood Top Cork.



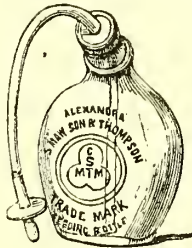
1/-.

Export Feeding Bottle.
Earthenware Cap.



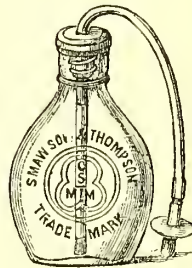
1/-, 1/6, & 2/6.

Alexandra Feeding Bottle.
Earthenware Cap.



1/6.

Alexandra Feeding Bottle.
Screw Glass Stopper.



1/-.

Export Feeding Bottle.
Screw Glass Stopper.

MAW'S "EXPORT."

	£	s.	d.
Green Glass, SCREW GLASS stoppers, in boxes of 1 doz. per doz.	0	4	0
Green Glass, SCREW METAL caps, in boxes of 1 doz. per doz.	0	4	3
Green Glass, METAL caps, in boxes of 1 doz. per doz.	0	3	9
Green Glass, WOOD-TOP corks, in boxes of 1 doz. per doz.	0	3	4
White Glass, EARTHENWARE caps, and each with tube and bottle brush, in neat box . . . per doz.	0	6	6
White Glass, SCREW GLASS stoppers, and each with tube and bottle brush, in neat box . . . per doz.	0	7	0
White Glass, SCREW METAL caps, and each with tube brush, in neat box per doz.	0	7	6

MAW'S "ALEXANDRA."

	£	s.	d.
Green Glass, WOOD TOP corks, in boxes of 1 doz. per doz.	0	3	6
White Glass, EARTHENWARE caps, and each with tube brush, in neat box per doz.	0	7	0
White Glass, SCREW GLASS stoppers, and each with tube and bottle brush, in boxes . . . per doz.	0	10	0
White Glass, EARTHENWARE caps, extra teat, glass tube and valve, and with tube and bottle brush, in boxes per doz.	0	10	0
White Glass, SCREW METAL caps, extra teat, glass tube and valve, and with tube and bottle brush, in boxes per doz.	0	10	0
White Glass, GILT PORCELAIN caps, superior fittings, brown indiarubber tubing and teat, tube and bottle brush, extra indiarubber tube and teat, and with glass tube and valve, in strong boxes per doz.	0	18	0

A Liberal Discount to Large Buyers.

S. MAW, SON & THOMPSON, 7 to 12 Aldersgate Street. London.

PATENT PLUMBAGO CRUCIBLE COMPANY

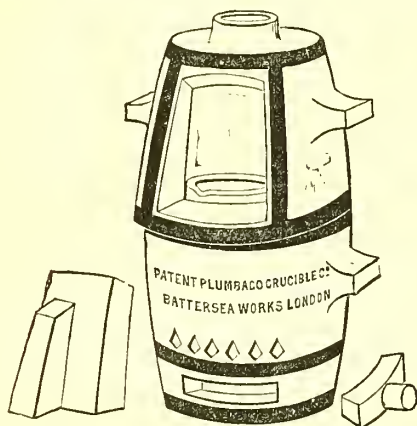
(SOLE MANUFACTURERS OF MORGAN'S PATENT CRUCIBLES).

PORTABLE FURNACES.

IRON BOUND. EXTERIOR DIMENSIONS.

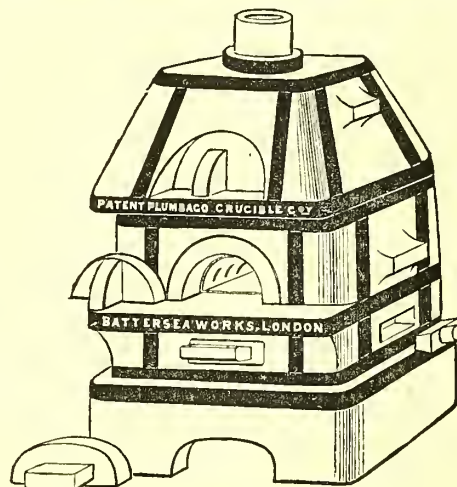
For MELTING GOLD, SILVER, COPPER, &c.

For ASSAYING, DENTAL WORK, &c.



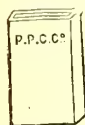
No. 1.

Melting Furnaces	Diam.	Height	For a Morgan's Patent Crucible	Price
No.	in.	in.	No.	£ s. d.
A	9½	17½	2	1 0 0
B	9½	20	4	1 5 0
C	11	22	6	1 10 0
D	13½	26	8	2 5 0
E	14½	28	12	3 0 0
F	18	32	16	4 0 0



No. 2.

Muffle Furnaces	Diameter	Height	Furnace
No.	in.	in.	£ s. d.
A	12½	24½	2 0 0
B	13½	25½	2 5 0
C	14½	27	2 10 0
D	15½	28½	3 0 0
E	16½	29½	3 10 0
F	17½	30	4 0 0



FLAT.

Diam. 1 in., height 4 in., 1/6; 5 in., 2/ per dozen.
 " 1½ in., " 4 in., 2/; 5 in., 2/6; 6 in., 3/ per dozen.
 " 2 in., " 4 in., 2/6; 5 in., 3/; 6 in., 4/; 7 in., 4/; 8 in., 4/6;
 " 2½ in., " 9 in., 5/; 10 in., 6/ per dozen.
 " 3 in., " 4 in., 3/; 5 in., 3/6; 6 in., 4/; 7 in., 4/6; 8 in., 5/; 9 in.,
 " 6/; 10 in., 8/; 11 in., 12/; 12 in., 16/ per dozen.
 " 3 in., " 5 in., 4/; 6 in., 5/; 7 in., 5/6; 8 in., 6/; 9 in., 7/;
 " 10 in., 9/; 11 in., 12/; 12 in., 16/; 13 in., 17/ per doz.

FLAT, all with Ears except those Numbers with *

No.	Hght.	Width	Depth	Price	No.	Hght.	Width	Depth	Price	No.	Hght.	Width	Depth	Price	No.	Hght.	Width	Depth	Price
1*	4½	2½	1½	4/	15*	6½	4	1½	8/	29	6½	4½	1½	8/	43	5½	3	1	6/
2	4½	2½	1½	4/	16	6½	4½	1	10/	30	6½	4½	1	14/	44	5	3	1½	6/
3	4½	2½	1½	4/	17*	7½	6½	1	18/	31	7½	5½	1	14/	45	8½	7	1½	20/
4	4½	2½	1½	4/	18*	8½	5½	2½	18/	32	8½	5½	1	14/	46	5½	4½	1	8/
5	4½	2½	1½	4/	19*	10½	6½	1½	24/	33	8½	7½	1½	20/	47	6	6½	1½	12/
6*	5½	2½	1½	5/	20*	14½	8	2	36/	34	7½	4½	1½	12/	48*	4½	3½	1½	8/
7	4½	2½	1½	4/	21	15½	3½	1	6/	35*	4½	2½	1	4/	49*	4½	3½	1½	6/
8	4½	2½	1½	4/	22	7	4	1	4/	36	5½	4½	1	6/	50*	4½	4½	1½	8/
9	5½	3½	1½	6/	23	4½	2½	1	12/	37	5½	5½	1	8/	51	6	4½	1½	6/
10	4½	2½	1½	4/	24	4½	4½	1	8/	38*	6	4	1	8/	52	5½	3½	1½	6/
11	4½	3	1	6/	25	4½	5½	1	10/	39*	6	4	1	8/	53*	4½	3½	1½	6/
12*	5	3	1	5/	26	5½	4½	1	8/	40	4½	3½	1	6/	54*	4½	4½	1½	8/
13	5½	3½	1½	8/	27	4½	2½	1	4/	41	4½	2½	1	4/					
14*	4½	4½	1½	8/	28	6½	3½	1	8/	42*	6½	4	1	8/					

ALL SIZES MADE TO ORDER.

Other particulars on application to

PATENT PLUMBAGO CRUCIBLE CO., BATTERSEA WORKS, LONDON, S.W.

JAHNCKE'S WAX-VESTAS

OF THE FINEST QUALITY,
IN NEW PATENT METAL BOXES,
UNIVERSALLY PATENTED.

The Greatest Invention in Box-Making of the Age.
Perfectly Round Corners in Square Boxes.

RETAILING AT ONE PENNY.

Orders through Wholesale Houses.

ERNST JAHNCKE,
Patentee,
33 ST. PAUL'S ROAD, CANONBURY, N.



W. H. BAILEY & SON,

16 OXFORD STREET, LONDON,
ESTABLISHED A.D. 1833.



FIRST PRIZE (SILVER MEDAL) FOR TRUSSES AWARDED BY THE
WORSHIPFUL COMPANY OF CUTLERS OF THE CITY OF LONDON, MAY 1879.

FIG. 1.

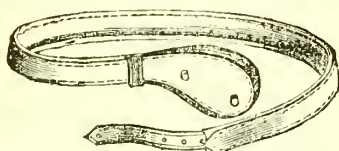


FIG. 4.

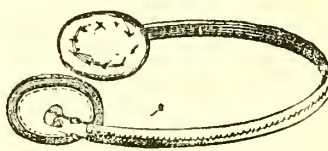
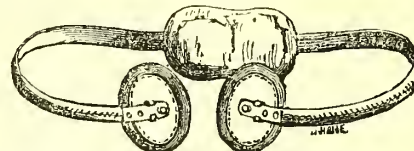


FIG. 5.



TRUSSES.

Circular Trusses, single, as Fig. 1, basil and chamols or basil and moleskin	per doz.	£1 1 0
Circular Trusses, double, basil and chamols or basil and moleskin	per doz.	1 14 0
" " " " with extending backs	"	2 14 0
Salmon & Ody's Expired Patent, single, Fig. 4	"	1 10 0
" " " " double, Fig. 5	"	3 0 0
Moc-Main Lever, single	each	0 8 0
" " double	"	0 13 6
Coles's Expired Patent, single	"	0 5 6
" " double	"	0 10 6
Scrotal Trusses, basil and chamols or moleskin, single	"	0 4 0
" " " " double	"	0 7 0

SUSPENSORY BANDAGES.

No.		
1.	Cotton Bags and tape under-straps	per doz. 0 8 0
2.	Cotton Oxonian, with drawing-strings	" 0 10 0
3.	Silk Bags and tape under-straps	" 1 1 0
4.	Silk Oxonian, with drawing-strings	" 0 18 0
5.	" " Bags bound with elastic	" 1 4 0

SUSPENSORY BANDAGES—continued.

No.		
6.	Silk Oxonian, superior quality, bands of buff jean, with drawing-strings	per doz. £1 4 0
7.	Silk Bags, to button on, with tape under-straps	" 1 1 0
8.	" " " under-straps to button	" 1 4 0

ELASTIC STOCKINGS, KNEE-CAPS, ETC

Manufactured expressly for Export, and warranted to stand a hot climate better than any others in the Market.

	Silk.	Super. Silk.	Cotton.	Super. Cotton.
Stockings pair	£ s. d. 0 9 0	£ s. d. 0 13 6	£ s. d. 0 5 3	£ s. d. 0 6 6
Knee-caps "	0 6 0	0 9 6	0 3 6	0 5 0
Calf-pieces "	0 6 8	0 9 0	0 4 0	0 5 6
Socks "	0 5 0	0 7 6	0 3 3	0 4 6
Wristbands "	0 2 0	—	0 1 6	0 2 0
Knee Stockings "	0 15 0	1 3 0	0 8 9	0 11 6
Belts, to draw on .. each	0 15 0	1 1 0	—	0 9 0

The above may be obtained direct from the Manufacturers, or from their Wholesale and Export Agents, Messrs. Barclay & Sons, 95 Farringdon Street.

LINDSEY & SONS,

EXPORT

TRUSS & BANDAGE MANUFACTURERS,

32 LUDGATE HILL,

AND

40 GRACECHURCH STREET, LONDON, E.C.

NETT PRICES.—1879.

	Per dozen.		Per dozen.
COMMON PRINCIPLE TRUSSES, Basil and Chamols	£0 16 0	SALMON & ODY'S EXPIRED PATENT, Single, White or Red Roan	£1 7 0
Ditto Mole Lined	1 0 0	Ditto Calf and Silk sewn	1 10 0
Ditto White or Red Roan	1 4 0	Ditto Double, Basil and Chamols	£2 2s. and 2 8 0
Ditto Calf Covered, Silk Sewn	1 10 0	Ditto " White or Red Roan	2 14 0
DOUBLE TRUSSES, COMMON PRINCIPLE, covered Basil and Chamols	1 4 0	Ditto " Calf, Silk sewn	3 0 0
Ditto Mole Lined	1 6 0	VERY NARROW, SALMON & ODY'S PRINCIPLE, as "Wickham's," a	
Ditto White or Red Roan	1 10 0	Ditto Superior Truss, Single	2 14 0
Ditto Calf and Silk sewn	1 15 0	Ditto Double	5 8 0
SINGLE CIRCULAR, VERY LIGHT AND NARROW SPRING, imperceptible—		COLE'S EXPIRED PATENT TRUSSES, Single, covered best Doeskin	48/ and 3 0 0
Plain, Single	1 12 0	Ditto Double, covered best Doeskin	96/ and 6 0 0
Best Covered, Single	2 5 0	MOC-MAIN TRUSSES, Plain, Staffed real Moc-Main—	
Plain, Double	2 2 0	as White's, £3 12s.	Double 7 4 0
Best Covered, Double	2 16 0	Ditto Sunk Springs, ditto—	
SALMON & ODY'S EXPIRED PATENT, Single, Basil and Chamols	1 4 0	as White's, £5 8s.	Double 10 16 0

LINDSEY & SONS' Trusses have long maintained a high reputation for quality, and they will be happy to send their full descriptive price list on receipt of address, post free.

Customers are requested to order specially LINDSEY & SONS' TRUSSES, either direct or through any Wholesale House.

EXTRACTUM MALTI "KEPLER."

"Kepler's Malt Extract is very good, and may be used with confidence."—THE LANCET.

"Is first on the list of extracts rich in Diastase and as digester of starchy food."—MEDICAL TIMES AND GAZETTE.



SYR: HYPOPHOS: COMP: "FELLOWS."

A DISTINCT AND PECULIAR COMBINATION.

OFFICE—NO. 8 SNOW HILL, HOLBORN VIADUCT, LONDON, E.C.

Pronounced "Altogether the most effective preparation of Hypophosphites in the market" by all physicians and the public who have tried it. We desire to introduce this Standard American Remedy to the Trade of Great Britain and Colonies, and will supply, free of charge, counter bills and pamphlets with your card on; also specimens for distribution among your medical men. An Agent wanted in every town. Send for Circular and Prospectus.

S. M. BURROUGHS & CO., Wholesale Agents.

AN IMPROVEMENT IN PEPSIN OF B.P. STRENGTH.

EFFECTIVE, PERMANENT, WHITE,
PALATABLE, SOLUBLE, ECONOMICAL.

MANUFACTURED FOR THE WHOLESALE AND EXPORT DRUG TRADE.

PRICE 24s. PER LB.,

Warranted to keep in any Climate, and for any time, or money refunded. The Best and Cheapest PEPSIN in the Market.

SEND FOR TEST SAMPLE, FREE BY POST.

S. M. BURROUGHS & CO., 8 Snow Hill, London, E.C.

Oleum Morrhuae cum Extr. Malti "KEPLER."

The Best Food for producing Fat and Muscle. Much more effective and digestible than plain oil.

"Has wonderfully little of the disagreeable taste of the oil."—THE LANCET.

"Probably no one will find any difficulty either in taking or digesting it."—MEDICAL PRESS.

A LIBERAL SUPPLY OF COUNTER BILLS WITH YOUR CARD ON FREE ON APPLICATION BY POST.

8 SNOW HILL, LONDON, E.C.

WINTER SEASON, 1879-80.

WE CAN CONFIDENTLY RECOMMEND FOR THE COMING WINTER'S SALE THIS SEASON'S **A 1 COD LIVER OIL**, MANUFACTURED BY US WITH SPECIAL REGARD TO THE IMPORTANCE OF ITS MAINTAINING A UNIFORM BRILLIANCY AND LIMPIDITY.

We have gradually improved our method of Manufacture, and this Season's is fully equal to that we supplied last winter, which stood the test of the severe weather so well as to obtain the warm approval of many Pharmacists.

The great care exercised by us in the selection of the Livers, and the removal of the solid and indigestible Fatty Acids in the process we employ, result in an oil characterised by

ABSOLUTE PURITY, GREAT BRILLIANCY, AND DELICACY OF FLAVOUR.

Price—9/- per Gallon in Winchester Quarts, or 8/9 per Gallon in 25-Gallon Casks.

BLUE LABELS FOR CORKS of Bottles, also Medical and Retail Circulars supplied.

SOUTHALL BROS. & BARCLAY, BIRMINGHAM.

DRAPER'S INK (DICHROIC)

THE NEW BLACK INK, different from anything else ever produced. Writing becomes a pleasure when this Ink is used. It has been adopted by the principal Banks, Public Offices, and Railway Companies throughout Ireland.

It writes almost instantly full black.

Does not corrode Steel Pens.

Dries rapidly on the Paper.

Is cleanly to use, and not liable to blot.

Flows easily from the Pen.

Blotting-paper may be applied at the moment of writing.

In Jars, 6d., 1s., and 2s. each.

Can be obtained, in London, through Messrs. BARCLAY and SONS, Farringdon Street; W. EDWARDS & SON, 157 Queen Victoria Street, London, E.C.; F. NEWBURY and SON, Newgate Street; S. MAW, SON, and THOMPSON, Aldersgate Street; JONES and CO., 98 Southwark Street; WM. MATHER, London and Manchester; AYRTON and SAUNDERS, Duke Street, Liverpool; and GOODALL, BACKHOUSE & CO., Leeds.

BEWLEY & DRAPER, Limited, DUBLIN.

See "CHEMIST AND DRUGGIST," December 15th, 1874.

SAVORY & MOORE'S SPECIALITIES.

PANCREATIC EMULSION, or MEDICINAL FOOD, in Consumption and

Wasting, will always take precedence of Cod Liver Oil by reason of its introducing the Stable Solid Fats into the system instead of the evanescent fluid fats or oils.

No Oily Emulsions of any kind, not even Cod Liver Oil itself, can supply the kind of fat necessary for sound and vigorous human life. In addition to this, all the Oily Emulsions are liable to rancidity, and most of them are highly objectionable in consequence of the Saponification, and ultimate Putrefaction, produced by the Chemical agents used instead of Pancreatic Juice, so that

PANCREATIC EMULSION, or MEDICINAL FOOD, is the most reliable form of nutriment for counteracting all tendencies to Phthisis and other wasting Diseases. It presents to the Lacteals fat in essentially the same condition for assimilation and absorption as in the vigorous human frame, and the agent of the important change is the natural secretion of the Pancreas.

PHOSPHORISED COD LIVER OIL. Originated by SAVORY & MOORE. The advantage of this preparation over the imitations of it consists in the ability to administer a SUFFICIENT dose of Phosphorus without the admixture of a LARGE quantity of Cod Liver Oil. Supplied in Bulk or Small Bottles.

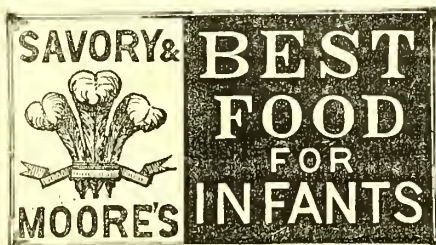
PHOSPHORUS PILLS. 1-32nd of a grain, or any other strength required, non-resinous and perfectly soluble.

PANCREATISED (Digestive) COD LIVER OIL. By combining the Pancreatic Juice with the Oil, the digestion of the latter is easily and rapidly effected, nausea is prevented, and the beneficial properties of the Oil are increased.

PANCREATINE (Powder or Granules) represents the active principle of the Pancreatic Juice, by which fats and oils are digested and assimilated. In Bottles, Wholesale and Retail.

PANCREATINE WINE.

PEPSINE PORCI. PEPSINE WINE. In Bulk or in Small Bottles.



USED IN THE ROYAL NURSERIES,

AND POSSESSING EVERY REQUIREMENT NECESSARY IN A DIET FOR CHILDREN BROUGHT UP WHOLLY OR PARTIALLY BY HAND.

Containing the highest amount of nourishment in the most digestible and convenient form.

THE MOST PERFECT SUBSTITUTE FOR HEALTHY MOTHER'S MILK.

N.B.—This Food has only the sugar natural to healthy milk, and is therefore free from the baneful sweetness of highly sugared Foods.

SAVORY & MOORE, 143 New Bond Street, LONDON, W.
AND ALL CHEMISTS THROUGHOUT THE WORLD.



COLONIAL BUILDINGS, 44A CANNON STREET, LONDON, E.C.

Published on the 15th of each Month.

TWENTY-FIRST YEAR OF PUBLICATION.

Subscription, 10s. per year, payable in advance; commencing from any date.

Post free to every country in the world. Single Copies, 1s. each.

Post Office Orders to be made payable to EDWARD HALSE, at the General Post Office.

An index to the advertisements, and the terms for insertion, will be found on page 33.

Literary Contents.

	PAGE		PAGE
Pharmaceutical Council	422	Chemistry	444
Chemists and Druggists' Trade Association	422	Materia Medica	445
Chemists' Assistants' Association	424, 447	Dirty Water Opathy	445
Metropolitan Reports	424	Editorial Notes	446
Provincial Reports	424	Capsuling Bottles	447
School of Pharmacy	427	Mineral Soap	447
South London School of Pharmacy	431	The Weights and Measures Act	447
American Pharmaceutical Association	432	Tea, Coffee, and Chocolate	448
Price's Patent Candle Company (Limited)	434	The Bell Scholarships	448
Sulphur	434	New Tariff in Victoria	448
W. A. Tilden, D.Sc.	435	Prosecutions under the Pharmacy Act	449
Hearing and some of its Defects	436	The Nature and Quality of Soda Water, Important Prosecution	450
Formulae of a few Syrups	437	Extraordinary Charge of Assault	455
Ripe Indian Bael Fruit	438	Bankruptcies and Liquidations	455
Californian Quicksilver Trade	439	Medical Gleanings	456
Scientific Work for Pharmacists, Dr. Symes	439	Foreign Items	457
Addresses at the Medical Schools	441	Personalities	458
Fireproof Compounds	442	Obituary	458
American Import Trade in Drugs and Chemicals	442	Trade Notes	459
A Special Trade Exhibition	443	Abstracts of Specifications	460
Cricket Match—Maw's v. Baiss'	443	Gazette	460
Formulae of Secret Medicines ..	444	Patents	461
		Exchange Column	462
		Trade Report	464
		Monthly Price Current	465
		Correspondence	467



Any advertisements for THE CHEMISTS' AND DRUGGISTS' DIARY for 1880 not yet sent should reach us within the next week, as we shall very soon close for press.

The logic of the Pharmaceutical Council is past finding out. For several years past they have refused to receive ladies as members of the Society. Last May, however, they formally submitted the question to the members generally. The voting was close, but the majority was decidedly opposed to the admission of ladies. The question was brought before the Council at its last meeting, and every councillor, with the single exception of the President, including those who had formerly spoken earnestly against, now voted for their admission. This is not the first time the decisions of annual meetings have been treated with contempt by a certain section of the Council, but this is certainly the most flagrant instance, notwithstanding the triviality of the question in dispute. There is no pretence on this occasion that circumstances have altered, or that the Council have acts before them which cannot be made public.

It has been decided that three more annuitants shall be added to the pensioners on the Benevolent Fund, making 32 in all. The Council is going beyond its exact income by this

addition, but rightly trusts to the generosity of the trade, who will doubtless subscribe more liberally when it is seen that the money is being judiciously spent, instead of being stored up for the benefit of posterity.

The Chemists' Trade Association have prosecuted three persons—one in Blackburn, one in Liverpool, and one in Birmingham—for selling poisons not labelled in accordance with the Pharmacy Act. In neither case had the vendor any right to sell poisons at all, but that infringement of the Act can only be prosecuted by the officers of the Pharmaceutical Society. It is quite clear that the vindications of the Act by the latter body have not been frequent enough to make it known, not to say respected, while the effect of their kindly-intentioned letters of warning was shown in the Birmingham case, in which, if such a letter had been sent, it had been apparently forgotten, and was certainly disregarded.

An important legal case, in which the right of chemists to sell as soda water an aerated water containing a mere trace of bicarbonate of soda has been established, is reported from Newport (Mon.). Mr. Glaisyer, for the Chemists' Trade Association, defended the case, and Professor Attfield and Mr. Stoddart gave evidence for the defence. Soda-water makers and sellers would do well to make themselves acquainted with the facts of this case.

Dr. Tilden delivered the inaugural address to the students at Bloomsbury Square on October 1, and suggested to students that the near future opened excellent prospects to those who by careful study would fit themselves for such appointments as medical officers of health and public analysts. Well-trained pharmacists might choose between the adoption of a trade or of a profession; but young men who have passed their examinations are not entitled on that account to regard themselves as unrecognised and unrewarded benefactors of the human race, and had better submit patiently to the neglect of what is called "society." Another inaugural address was delivered by Mr. Joseph Ince to the students of the South London School of Pharmacy.

We take the opportunity of Dr. Tilden's posthumous pharmaceutical appearance to publish his portrait with a slight sketch of his scientific career.

Dr. Charles Symes has been elected President of the Liverpool Chemists' Association; Mr. A. H. Mason, F.C.S., Vice-President; and Mr. M. Conroy, F.C.S., Hon. Secretary. Dr. Symes, in his inaugural address, which we publish elsewhere, urges pharmacists to assume a better social position by cultivating the scientific side of their business.

The meeting of the American Pharmaceutical Association was held at Indianapolis last month, and we give brief abstracts from some of the papers read on the occasion.

A man at South Shields accused of selling lozenges coloured with chromate of lead explained that it was an accident occasioned by the man who was colouring the lozenges using the paint which was being used to decorate a cart. He was fined 5*l.* all the same.

Some fever powders sold at Newhaven by a grocer were suspected of causing a child's death, but the evidence was not sufficient to prove the theory. It was proved, however, that the proportion of calomel contained in the powders professedly for children of the same age varied more than they should have done.

During the month the Sheriff of Perth has given a decision which declares that the use of weighing machines is illegal, and a chemist has been fined for using on the beam of his scales a counterpoise to balance jugs and other vessels in which liquids are weighed.

The Pharmaceutical Council.

AT the meeting of the Council on October 1 all the members were present except Mr. Slipper. The President, Mr. Sandford, in the chair.

GLASS MEASURES.

The President said he had received a letter from the Standards Department of the Board of Trade Office stating that the Board cannot interfere with the local authorities charged with the duty of verifying and stamping all weights and measures. The letter also asked that someone should be deputed by the Society to call on Mr. Chaney, when that officer would give any further information in his power in reference to the Act. The President had, therefore, called on Mr. Chaney, and had received the following information: No order had yet been issued as to the verifying of glass measures, and it had not yet been decided to issue any respecting them; if determined on it would probably only refer to the top line of graduation, and not to the subdivisions. For the present chemists need fear no interference from local inspectors, because they were not in possession of the standards, and would not be for three months to come. With regard to the idea which some persons entertained that weights or measures could only be used in the district in which they had been stamped, Mr. Chaney said this was altogether a mistake. A weight or measure stamped in one district was good in every district.

LADIES ADMITTED AS MEMBERS.

Miss Isabella Skinner Clarke and Miss Rose Coombes Minshall, both of London, and both pharmaceutical chemists, had tendered their subscriptions for the current year, and had applied for membership. Mr. Hampson moved that they should be elected. He thought the question ought never to have been referred to the annual meeting, and he urged that it was the duty of the Council to elect all eligible persons, irrespective of sex. Mr. Woolley seconded the proposition, and it was supported by all the Council with the exception of the President. Several members who had opposed the motion on previous occasions agreed to it now, with the object of settling a question which, as Mr. Robbins said, the members were getting tired of.

Additions to the Register.

The Secretary reported that—

John Cammack, Benington, near Boston;
William Clarke Edmonds, Rawmarsh, Yorks;
Frederick Ellis, 25 Cleveland Road, Downham Road, Islington, N.;

Frederick John Sicre, 33 Molyneux Road, Farnworth Street, Everton, Liverpool; and

William Henry Thomas, 94 Victoria Street, Dowlais; having made statutory declarations that they were in business before the passing of the Pharmacy Act, 1868, and their declarations having been duly supported by medical practitioners, their names have been placed on the register.

REPORTING THE COMMITTEES.

Mr. Symes suggested that, in order to carry out the resolution which had been passed at his suggestion two months previously, the Committees should frame their own reports, and on resuming submit them to the Council for approval. Mr. Shaw said that would involve a second discussion as to what should be reported, and he thought the report should be left to the professional reporter. Mr. Richardson took a similar view, but Mr. Hampson supported Mr. Symes. The President, however, said as there was a good deal to do it would be better if Mr. Symes would give notice of a motion if he had anything definite to propose.

COMMITTEE REPORTS.

The Council then considered the recommendations of the various Committees, and agreed to a grant of 35% to the Manchester Chemists and Druggists' Association, and discussed with the Solicitor various cases for prosecution. Mr. Churchill mentioned that the Chemists and Druggists' Trade

Association had prosecuted a case of illegal sale of poison, and the defendant had been fined. Mr. Richardson thought it might lead to confusion if two bodies undertook the prosecution of offenders, but the President remarked that this prosecution was under the 17th section of the Act; that the Society did not generally prosecute under that section, under which anyone could institute proceedings.

BENEVOLENT FUND.

Seven grants of sums varying from 5*l.* to 15*l.* were made, and it was agreed that three more pensioners should be elected. There were at present 29 annuitants. There were nine applicants. Mr. Williams said the election of these three would exhaust their funds, and even involve some risk. If subscriptions were more general they could have gone further, and he hoped friends in the country would see that this was not a question of disputed politics, and would give something, however small, to assist the fund.

Mr. Shaw gave notice that he would next month bring forward a motion to prevent candidates issuing canvassing cards and circulars.

The Chemists and Druggists' Trade Association of Great Britain.

LEGAL MATTERS.

A MEETING of the Law and Parliamentary Committee of this Association was held at the office of the Association, Birmingham, on September 19, 1879, at 1 P.M., Mr. Thomas Barclay, President, in the chair. Present—Messrs. Andrews, Churchill, Holdsworth, Jones, Southall, and the Solicitor of the Association. Letters were read from Messrs. Cross and Hampson regretting their inability to attend.

THE PATENT MEDICINE TRADE.

The President said the first question on the agenda paper related to the patent medicine question. The Executive at its last meeting passed the following resolution:—"That the Law and Parliamentary Committee be directed to take any steps which they may deem desirable to obtain information to enable them to bring about modifications in the Pharmacy Act, 1868, to restrict the sale of scheduled poisons under cover of the patent medicine stamp to registered chemists and druggists, and to report to the next meeting of the Executive." The question they had to consider was what steps they should take to obtain information to bring about modifications in the Act. The necessity of dealing with that question was becoming greater every day, and it appeared to him to be the right thing that the association should take up the matter; it was a very complicated question, and it was desirable that they should endeavour to procure such information as would enable the Executive to grapple with the subject.

Mr. Holdsworth said there were really two sides to the patent medicine question: one, that of the prices at which they were sold, and the other the fact of unregistered men selling patent medicines containing scheduled poison.

Mr. Jones said it was the law in France that all proprietors of patent medicines should make a declaration as to whether they contained poisonous ingredients.

The President said it would be damaging to the patent medicine trade in this country if it were made compulsory on the proprietors to make a declaration of the composition of their goods. On the other hand, they would probably have the sympathy of medical men in asking the Legislature to pass an Act of that description.

Mr. Holdsworth said it would be necessary, in the first instance, to prove to the satisfaction of the Legislature that the present system of unregistered persons vending patent medicines containing scheduled poisons was dangerous.

Mr. Andrews concurred with Mr. Holdsworth's remarks. He said they would get very little sympathy from the Government unless they were in a position to show that an evil to the public existed in dangerous poisons being sold

by unqualified persons under cover of the patent-medicine stamp.

The President said he thought if that was proved they would have the medical men on their side, and that the Legislature would be disposed to so modify the Act as to comply with their request. He continued to say that he thought circulars might be issued from the office to influential members of the trade in various parts of the country inquiring for particulars of any serious accidents that had happened from the sale of patent medicines containing scheduled poisons.

After some further discussion it was moved by Mr. Andrews, seconded by Mr. Jones, and unanimously resolved:—

That a circular be sent to members of the General Committee and others, asking for well-authenticated instances in which fatal results have followed from the sale of scheduled poisons under cover of the patent-medicine stamp, and for suggestions and information on the sale of patent medicines generally.

JURY SERVICE.

The President said the next question for the consideration of the Committee had reference to jury service. The following resolution was passed by the Executive at its last meeting:—

That the Law and Parliamentary Committee be and are hereby empowered to take such steps as they deem advisable to obtain the exemption of all registered chemists and druggists from jury service.

The Solicitor said he feared nothing could be done by the Association in that matter at present.

The President said he knew from personal experience that it was a very sore point with the trade, and one which they were very anxious should be taken up.

The Solicitor said no active steps could be taken until an amended Pharmacy Act or Jury Bill was before the house.

Mr. Holdsworth said it would be a mere waste of time and money to move in the matter just then.

Mr. Andrews said he was exceedingly anxious that all chemists and druggists should be exempt from jury service, but he thought they must wait for a favourable opportunity to accomplish that object.

INFRINGEMENTS OF THE PHARMACY ACT.

The Secretary stated that in compliance with instructions received from the Executive at its last meeting, he had collected evidence in a number of cases of infringement of the Pharmacy Act, 1868, the particulars of which were laid on the table.

After a careful examination of the evidence collected, it was moved by Mr. Andrews, seconded by Mr. Southall, and unanimously resolved:—

That the Solicitor be instructed to take proceedings under the 17th section of the Pharmacy Act, 1868, against three illegal traders, and that particulars of these cases, with the remaining cases of infringements of the Act collected by the Secretary, be forwarded to the Secretary and Registrar of the Pharmaceutical Society.

THE METHYLATED SPIRIT CASE.

The Secretary reported that, in accordance with a resolution passed by the Executive at its last meeting, he proceeded to Sunderland, and investigated the case of a member of the Association, against whom proceedings had been taken by the Excise authorities for the sale of methylated spirit without a licence, that the case was heard by the Sunderland Borough Magistrates on July 23, 1879, when the Solicitor of the Association defended. The defendant was fined a mitigated penalty of 12*l.* 10*s.*, with a recommendation from the Bench to the Excise authorities to still further reduce the penalty to 5*l.* A letter, bearing date August 8, 1879, from Mr. Gillies, 13 High Street, Sunderland, was read, stating that he had received a notice from the Inland Revenue authorities requesting him to pay the reduced penalty of 5*l.*, as recommended by the Borough Bench. In the same communication Mr. Gillies requested the Secretary to lay before the Executive an expression of his hearty thanks for the handsome way in which his case was supported by the Association.

A number of letters were read from members of the Association, and instructions given to the Secretary as to the manner in which he should deal with the same.

ANOTHER meeting of the Law and Parliamentary Committee was held at the office of the Association on October 8, at 1 P.M., Mr. Thomas Barclay, President, in the chair. Present:—Messrs. Andrews (London), Churchill (Birmingham), Cross (Shrewsbury), Hampson (London), Holdsworth (Birmingham), Jones (Leamington), Symes (Liverpool), and the Solicitor of the Association.

The PRESIDENT said Mr. Southall was unavoidably prevented from attending.

The minutes of the previous meeting of the Committee were read and confirmed.

The SECRETARY said that in compliance with the instructions of the Committee he had issued circulars to influential members of the trade asking for well-authenticated instances in which fatal results had followed the sale of scheduled poisons under cover of the patent medicine stamp, with a view to obtain information and suggestions that would prove to the satisfaction of the Legislature that the present system of unregistered persons vending poisons under cover of the patent medicine stamp was dangerous to the general public.

A large number of replies to this circular were laid on the table, and extracts from some read.

The PRESIDENT, having explained what the Committee had resolved on at its last meeting, said they had now to consider whether the replies to that circular contained adequate information, or whether it would be advisable to adopt other means.

Mr. HAMPSON said they had heard in one of the letters read by the Secretary a statement to the effect that it made little difference who sold patent medicines containing poisons, as they were not supposed to know the contents of such medicines. Such remarks had from time to time been applied to poisons sold uncovered by the stamp, but he was of opinion that it did make a considerable difference in whose hands the sale of such poisons was placed. He believed that the fact of the public being compelled to go to particular shops for the purchase of poisons was in itself an advantage to the trade. The public knew that they must go to registered persons to obtain poisons; if those poisons were obtainable at every shop they would be ranked with groceries and such like goods. The Legislature had thought it wise to restrict the sale of certain poisons to registered persons, and he failed to see any distinction, or any very important distinction, between the sale of poisons covered by the patent medicine stamp and the same poisons sold uncovered by the stamp. He considered that the sale of all scheduled poisons, covered or uncovered by the stamp, should be restricted to chemists and druggists, and he thought the efforts of the Association should be directed to that end, and that it was their duty to aid the Executive in accomplishing that object.

Mr. SYMES said he supported Mr. Hampson's views: it was an opinion he had long held. If the sale of patent medicines containing scheduled poisons were placed in their hands exclusively, it would to a certain extent increase their responsibilities, but he thought in the present state of affairs they must be prepared to accept those increased responsibilities.

The PRESIDENT said it had been already decided by the Executive to endeavour to restrict the sale of poisons under cover of the patent medicine stamp to chemists and druggists.

After further discussion it was moved by Mr. Hampson, seconded by Mr. Symes, and unanimously resolved:—

That the Secretary be empowered to take such steps as he deems expedient, by conference or otherwise, to collect information and suggestions on the sale of patent medicines, with a view to bring about modifications in the Pharmacy Act, 1868, to restrict the sale of scheduled poisons under cover of the patent medicine stamp to registered chemists and druggists.

The case of a member of the Association against whom proceedings had been taken under the Sale of Food and Drugs Act, for the sale of soda water, was discussed at considerable length, and after mature deliberation it was moved

by Mr. Andrews, seconded by Mr. Cross, and unanimously resolved:—

That the Solicitor be instructed to defend a member of the Association prosecuted for the sale of soda water, under the sale of Food and Drugs Act, and to employ the services of Professor Attfield and Mr. Stoddart.

The SECRETARY reported that in compliance with a resolution passed by the Committee at its last meeting he had taken out summonses against three illegal traders for infringements of Section 17 of the Pharmacy Act, 1868, and that a fine was in each case imposed by the magistrates. He said they would probably have observed from a leaderette in the last number of the *Pharmaceutical Journal* that the editor attributed that action on the part of the Association to an intimation furnished by the solicitor of the Pharmaceutical Society at the hearing of a recent case of prosecution under the same section of the Act, undertaken by order of the Pharmaceutical Council. The editor had, he presumed, forgotten that the Association carried to a successful issue three cases, proceedings in which were taken under that section, so long ago as June, 1877.

The SECRETARY further reported having forwarded to the Secretary and Registrar of the Pharmaceutical Society particulars of eight cases of infringements of the provision of Section 15 of the Pharmacy Act, in which he had collected evidence. Communications were read from the Secretary and Registrar of that Society, acknowledging the receipt of that letter, and detailing the course he had adopted in dealing with each particular case.

A letter was read from a member of the Association, stating that there were 10 or 12 illegal dealers in poison carrying on business in and around the town in which he resided.

It was moved by Mr. ANDREWS, seconded by Mr. JONES, and unanimously resolved—

That the Secretary be instructed to take proceedings from time to time against illegal traders, under Section 17 of the Pharmacy Act, 1868, in such cases as in his opinion, and that of the solicitor, it is expedient.

Chemists' Assistants' Association.

THE first meeting of the Third Session of this Association was held at the rooms, 32A George Street, Hanover Square, on October 8. About 30 members were present. After the minutes of the last meeting had been read, the President, Mr. F. W. Branson, delivered an inaugural address on the prospects of the Association and of its members. He said that the Association had received a considerable accession of numbers, and hoped that each member would endeavour to induce others to join, so that it might become self-supporting.

The programme for the evening meetings was very satisfactory; gentlemen who would not undertake lengthy papers might perhaps read short notes on subjects in which they were interested. All in the Association should do something to help their fellows.

The liberal pecuniary assistance given by the wholesale firms had supported them over a dangerous period when young corporations are apt to decay.

Pharmacy as an occupation seemed to be in a very poor state, and would probably become less and less profitable. The competition of co-operative stores and of other tradesmen would, sooner or later, deprive the pharmacist of the trade in toilet and similar articles, and to make a livelihood by pharmacy thus curtailed, the number who followed it must be reduced at least a half. To this end every candidate for admission to the craft might be required before passing the Preliminary examination to show a decided fondness for chemistry; he should have such a thorough knowledge of Latin that he might follow the directions of a universal pharmacopoeia without difficulty. A special school education would be of great advantage to the future pharmacist. It should at least include sufficient Greek to make scientific terms intelligible without a glossary, and a good practical acquaintance with French and German.

Pharmacists who had acquired a sound knowledge of their business would do well to follow some "hobby" such as geology, and time would be economised if types were studied rather than particulars. Above all things, the acquisition of knowledge should not replace necessary recreation.

The address was received with loud applause, and the thanks of the meeting were voted to Mr. Branson on the motion of Mr. Snell, seconded by Mr. Naylor.

Mr. Branson then called upon Mr. Wallace to present an address and a testimonial to Mr. E. Cardwell.

Mr. Wallace said that he had known Mr. Ernest Cardwell from the foundation of the Association as an assiduous labourer in its cause. Mr. Cardwell had acted as secretary from the very commencement, and had discharged his duties in such a way that all were grateful to him. If he worked as hard for himself as he had done for the Association he would surely succeed in life. He had great pleasure in presenting him, in the name of the Chemists' Assistants' Association, with a set of Dickens' works in 18 volumes, and an illuminated address testifying their regret that his removal from London would deprive the Association of his valuable aid, and wishing him every success in all his undertakings.

In moving a vote of thanks to the gentleman who had illuminated the address, Mr. Parkinson said he had had the privilege of knowing Mr. Cardwell longer than most of the members. They were natives of the same place, and had been schoolfellows. From a very early period it had been evident that Mr. Cardwell would be a useful member of society. It was hardly too much to say that he had made the Association.

Mr. Cardwell said the Association had treated him with more liberality than he deserved. He had done no more than every secretary should do. The Association had been formed to be of use to assistants, and he had done what he could to carry out its objects. He hoped that it would increase year by year, till from small beginnings great things should arise. He thanked them very heartily for their beautiful present.

Metropolitan Reports.

FIRE.—A fire broke out on September 24 at Messrs. Evans, Cant & Co.'s chemical works, Marshgate Lane, Stratford-by-Bow. There were hydrants on the premises, but though these were quickly at work, two buildings used as dye-sheds were nearly burnt out.

THE LEGALITY OF WEIGHING MACHINES.—Matthew Pound, 60 Leather Lane, chemist and druggist, was summoned on September 30 before a bench of county magistrates at the Freemasons' Tavern, charged with an infringement of the Weights and Measures Act. In this case the breach of the law consisted in a movable weight hung upon the beam of a scale, and it was explained that it was used to balance vessels in which quicksilver, acids, and so on, were weighed. The chairman said that his impression was that such an arrangement was not legal; but clearly there was no intention to do wrong, and therefore the fine would only be the nominal one of 2s. 6d.

Provincial Reports.

BELFAST.

DESTRUCTIVE FIRE.—On September 24, shortly after 12 o'clock, an extensive and disastrous fire broke out in the premises of Messrs. T. Devlin, Sons & Co., druggists and grocers, Donegal Street. As the stock consisted of a large quantity of inflammable material, in a very short time the whole building was one mass of flames, and in about half-an-hour the roof fell in, and the various storeys had been completely demolished. The fire extended to several adjoining premises. The buildings are all insured, and the loss is estimated at 80,000l.

BIRMINGHAM.

THE CENTENARY OF THE GENERAL HOSPITAL.—On September 29, 1879, the General Hospital completed the hundredth year of its existence as a medical charity. In 1779 the population of Birmingham was not more than 70,000. In 1879, including the suburbs, it is not far from 500,000. The Hospital, the first medical charity established in Birmingham, and one of the oldest in the provinces, was designed originally for 100 beds; when it was opened only 40 beds were provided; it now contains 250. In the week of its opening 10 patients were admitted; in the first year there were about 500 patients. In 1878, the last completed year of hospital work, the in-patients numbered 3,043, and the out-patients 28,963—a total of 32,000. In 1779 the annual subscriptions were about 900*l.*, and the total income was under 1,000*l.* In 1878 the annual subscriptions amounted to 5,400*l.*, the total income from all sources was 15,000*l.*, and the ordinary income may be reckoned at 9,000*l.* The names of Ash, and Withering, and Johnstone amongst the physicians, and of Freer, and Wood, and Hodgson amongst the surgeons of the institution, are but examples of the illustrious succession of men who have given the best years of their life to advance the interests of the institution and relieve the sufferings of the poor. It is proposed to commemorate the centenary of the charity by establishing a Chronic Hospital in some part of the suburbs of Birmingham, where patients may enjoy the benefit of prolonged treatment, and of the curative agencies of rest and pure air, and by which many beds in the General Hospital will be set at liberty for the treatment of casualties and acute cases now excluded for want of room.

DUBLIN.

ANNUAL MEETING OF THE PHARMACEUTICAL SOCIETY OF IRELAND.—The following are the results of the elections of the above society at the annual meeting held at the College of Physicians, Kildare Street, Dublin, on Monday, October 6:—Professor Titchborn, President; Dr. Aquilla Smith, Vice-president; treasurer, Mr. E. M. Hodgson; auditors, Messrs. W. Allen and Wm. Hayes; registrar, Mr. H. J. Fennell; finance committee, Dr. Collins, Messrs. J. Goodwin, J. T. Holmes and Stanley Oldham; examiners: Dr. E. W. Collins, in Latin, English and arithmetic; Dr. W. G. Smith, in materia medica and botany; Mr. H. N. Draper, F.C.S., in pharmaceutical and general chemistry; Dr. Montgomery, in practical pharmacy. The above were all unanimously re-elected. The scrutiny for members of council resulted as follows:—Dr. A. Smith obtained 51 votes, Mr. J. T. Holmes 49, Mr. Payne 45, Mr. Bennett 44, Sir G. B. Owen, M.D., 43, Dr. Whittaker 41, Mr. Wm. Goulding, M.P., 34, Mr. W. N. Allen, jun., 25. The first seven (the retiring members) were declared re-elected.

HANLEY.

A GOOD EXAMPLE.—The Mayor of Hanley announced to the Town Council on October 1 that, instead of following the custom of giving a dinner to celebrate his year of office, he should present 100*l.* to the Science and Art School of the town.

NOVEL POINT UNDER THE SALE OF FOOD AND DRUGS ACT.—At the Hanley Borough Court on September 24, James Paine was charged with selling yeast adulterated with 30 per cent. of potato starch. The case broke down, when Mr. Hamshaw, Magistrates' Clerk, pointed out that the Act required that samples should be personally delivered to the analyst, or sent by registered letter through the post; in this case the sample had been sent by train, which he held was not a legal delivery.

LEEDS.

POISONED BY CALOMEL.—A linen weaver, named Thomas Foster, aged 52, died on September 26, at Brompton. He had been ill for some time, and on the 25th bought 6 grains of calomel at Northallerton. He was warned that this was too much for a single dose, but he seems to have taken it all at once. The jury's verdict was—"That deceased's death was caused by an overdose of medicine."

LIVERPOOL.

THE CHEMISTS' ASSOCIATION.—The annual meeting of the Chemists' Association was held on September 25 at the Royal Institution, Mr. T. F. Abraham, president, in the chair. The annual report and the financial statement were submitted. The latter showed a balance of 13*l.* 15*s.* 3*d.* There are now 17 honorary members, 130 members, and 25 associates. Eleven scientific meetings, and a school of pharmacy had been conducted, and the council consider that there are encouraging signs of increased activity. The president's prize of books was awarded, on Professor Atfield's adjudication, to Mr. John Albert Jones. Messrs. T. F. Abraham, E. Davies, T. Garside and T. Williams retired by rotation from the council, and the following were elected by ballot:—Messrs. E. Davies, T. Garside, A. Watt, and T. Williams. Mr. Charles Symes, Ph.D., is the president for the ensuing year.

The first general meeting, thirty-first session, was held at the Royal Institution, October 9, the President in the chair.

The minutes of the previous meeting having been read and confirmed, the Secretary announced that the following gentlemen constituted the Council for the session:—Dr. Charles Symes, President; Mr. A. H. Mason, F.C.S., Vice-President; Mr. Sumner, Treasurer. Council:—Messrs. Abraham, Davies, Garside, Redford, Shaw, Watt, Williams, Woodcock. Hon. Sec., Mr. Michael Conroy, F.C.S., 31 Fleet Street.

Several new members and associates were elected.

The President then delivered his inaugural address, which is printed on another page.

Mr. Sumner moved, and Mr. Davies seconded, a vote of thanks, which was supported by the Vice-President, and unanimously conveyed to the President amid loud applause. The President replied, after which the meeting terminated.

LUDLOW.

SELLING POISON FOR A SEIDLITZ POWDER.—On September 18 Mr. R. Clinton, the landlord of the Bell Inn, Galford, Ludlow, had a very narrow escape. Feeling unwell, he despatched a servant to a chemist's shop for a "Seidlitz" powder. The girl returned, and Mr. Clinton mixed the powder and drank a portion, when he found all was not right. Violent pains in the stomach seized him, and antidotes were applied. The daily papers add that an inquiry resulted in the discovery that the boy at the chemist's shop, instead of giving the girl a "Seidlitz" powder, gave her "Precipitate" powder by mistake. Mr. Clinton, however, writes to us to exonerate the chemist from any blame. The servant misunderstood her directions, and asked for white precipitate powder. The packet was properly labelled with the name of the contents and with the word "Poison" in red letters, but in his hurry Mr. Clinton did not notice it. The mistake was made by the messenger, and not by the chemist.

MANCHESTER.

POISONED BY MISTAKE.—An inquest was held on September 29 on the body of Emily Warwick, 20 years of age, lately residing at 142 Ashton New Road, Manchester. The deceased, who was a schoolmistress, had suffered greatly from toothache, and on the previous night asked her mother for a dose of laudanum to ease the pain. The mother gave deceased half a teaspoonful from a bottle which was believed to contain laudanum, but which was afterwards found to be a liniment of aconite and glycerine, supplied some months before by Mr. W. Quicke, surgeon, Bradford Street. The girl died the next morning. The jury found a verdict of death by misadventure.

MANCHESTER CHEMISTS AND DRUGGISTS' ASSOCIATION.—On September 26 Mr. L. Siebold delivered a lecture at the Memorial Hall, in connection with the Manchester Chemists and Druggists' Association, upon "Pharmaceutical Education." Mr. G. S. Woolley presided. Mr. Siebold urged upon the younger members of the Association, of whom a large number were present, the necessity of gaining knowledge in a slow and systematic manner, beginning in the early days of their apprenticeship, instead of leaving it until they had nearly finished their term, and then endeavouring to make

up for lost time by superficial cramming. He contrasted the two systems, and pointed out that while in the one the student acquired a lasting knowledge, which he could advantageously employ in the pursuit of his calling, in the other he was merely trained to pass an examination and give answers to certain questions without properly understanding the hearing of them. In his opinion it was, he said, only the acquisition of scientific knowledge which would lead to the end so much desired by pharmacists—viz., the raising of themselves from their present comparatively low position to the rank of professional men, and of maintaining that position when once it was acquired. A vote of thanks was passed to Mr. Siehold at the conclusion of his lecture.

NEWCASTLE.

FATAL ACCIDENT.—On September 27 Mrs. Hair, wife of Mr. Matthias Hair, chemist, of Newcastle-on-Tyne, met with a fatal accident at the Central Railway Station of that town. James Taylor, the Tyneside rower, and his wife were leaving by the 10.5 train for London, and were accompanied to the railway station by some friends, including Mr. and Mrs. Hair. Mr. Taylor and his family got into a carriage at the end of the train, and just before it moved off Mrs. Hair walked to the other end of the platform to say "Good-bye" as the train passed. By the time the carriage in which the Taylors were seated had reached the spot where Mrs. Hair stood the train was going at some speed. In the excitement of the moment Mrs. Taylor put her hand out of the window to wish Mrs. Hair a final farewell. The act of laying hold of Mrs. Hair's hand had the effect of whirling her round, and in a moment she fell between the moving train and the platform. Several of the wheels passed over her head, and she was instantly killed. Mrs. Hair was buried on September 30, and the remains were followed to the grave by a large number of persons.

NEWHAVEN.

WELCH'S FEVER POWDERS.—A little girl named Young died at Newhaven under circumstances suspicious enough to warrant an inquest. A Welch's fever powder, prepared by Henry Moon, Trafalgar Street, Brighton, and purchased from Mr. Samuel Sergeant, a grocer, had been given to her, and she died soon after. Two or three other children had died under similar circumstances after taking these powders. Similar powders were submitted to Mr. Edward Henry Moore, of 21 Regency Square, Brighton, for analysis, and he reported that they consisted of one part of calomel to three parts of sugar. The powders were sent out in packets for children of different ages, but those intended to be exactly similar varied as much as half or one grain in weight. The powders for children from three to four years old contained $1\frac{1}{2}$ grain of calomel. Those for children from four to seven months contained $1\frac{1}{2}$ grain, from one to two years $2\frac{1}{2}$ grains of calomel. The difference in weight between some of the powders suggested that they had been measured and not weighed. Mr. T. M'Cann, surgeon, considered that the death, though due to inflammation of the bowels, had been accelerated by the calomel. The powders were very improperly described as fever powders, for while calomel might be useful in certain special cases, it would be injurious in the great majority of fevers. The Deputy Coroner, Mr. J. E. Fullager, in summing up, remarked that one good result of the inquest would be that parents would be warned against a powder which they might imagine to be a cooling or aperient medicine, but which in reality contained a very dangerous ingredient. In this case it had not been proved that death was caused by the powder, especially as a portion of the medicine was vomited, but at the same time these so-called fever powders were being extensively used, and might produce very injurious effects. Apart from the dangerous nature of the powder itself, he considered that the packets were sold in a manner which might very easily lead to a serious blunder. The envelopes containing powder of different strengths were precisely alike, and it would be a very easy mistake to sell them out of the wrong box, or to get the packets in the different boxes confused. If the jury were of opinion that death could not be traced to anything else but natural causes, it would rest with them, if they thought fit to do so, to append a rider expressing their opinion con-

cerning the indiscriminate sale of dangerous medicines. After some consideration the jury returned a verdict of "Death from natural causes," and added the following rider:—"The evidence discloses that a medicine fit only for skilled application is being indiscriminately sold and administered by incompetent persons, and the jury are of opinion that the sale and preparation of medicines containing dangerous ingredients should be restricted to duly qualified persons, and the active ingredient of such medicines should be stated on the wrapper in which the medicine is contained."

SHEFFIELD.

MESSRS. CUBLEY & PRESTON, Sheffield, have obtained the contract for supplying the Sheffield Board of Guardians with drugs and chemicals.

POISONING BY OPIUM.—An inquest was held on September 23, at Sheffield, on the body of Sydney Barnes, aged 50, who was a painter, living in Well Lane. The deceased had suffered from painter's colic, and on the 19th he had a fall from a roof. He complained of very great pain in the side. About noon on the 21st he took part of a pennyworth of opium to still the pain. About nine o'clock he complained of feeling very drowsy, and died at five o'clock next day. Henry May Hadfield, assistant to Mr. Ward, chemist, Sheffield Moor, said that on the night of the 20th deceased was twice at Mr. Ward's shop, and each time he purchased a pennyworth of opium. He had been several times on other days for opium. He said he was taking it to ease a pain he had which was caused by a fall from a vinery. He would get two scruples—a scruple for a penny. Two scruples would represent an ounce and a half of laudanum or about 720 drops [more correctly an ounce and a ninth, or 533 minims]. Mr. F. A. Willington, surgeon, said he first saw deceased about twenty minutes past three o'clock on the 22nd. He was insensible and under the influence of a narcotic. He used the stomach pump, and pumped stimulants into him, as he could not swallow. When witness left, the man was dying. There was a small piece of paper in the room which had apparently wrapped up a powder. Mr. Hadfield here stated that the opium was always put into a box and labelled. Mr. Willington added, the cause of death was narcotic poisoning. There were no marks of violence on the body. Mr. Wightman, the coroner, said that there was no more evidence, and the jury must arrive at a verdict upon it. There could be no doubt that the man had died from the effects of the opium, and not from any injuries which he might have received from the fall. The dose he took was equal to over 700 drops of laudanum of the usual strength, and that would be enough to kill every man in the room. [Divided among the jury and the coroner only it would have given each less than 50 minims.] There was no reason for thinking that the man committed suicide. Without the slightest hesitation the jury returned a verdict of "Died from an overdose of opium, taken to relieve the pain resulting from a recent accident."

SOUTH SHIELDS.

SELLING POISONED SWEETS.—AN EXTRAORDINARY DEFENCE.—At the South Shields Police Court, on September 26, George Wheatley, of Houghton-le-Spring, was summoned under the Sale of Food and Drugs Act, for having sold to Mr. J. J. Hindmarch, sanitary inspector for the borough, on September 13, certain confections which were mixed with chromate of lead.—The Town Clerk (Mr. J. M. Moore), who prosecuted, said the case was of some importance, inasmuch as it was a class of article sold largely to children, and at such a cheap rate that the quantity which they received for a small sum of money might do them a great deal of injury.—Mr. Hindmarch was then called, and he stated that the defendant had a stall in the Market Place on Saturdays, and sold sweets. Witness purchased 6 oz. of the confection produced from the defendant for 2d. He divided it into three equal portions, and had one of the portions analysed by Mr. Edger, the borough analyst. Mr. Edger's certificate showed that the yellow portions of the confection contained 0.68 per cent. of chromate of lead, a poisonous substance.—Dr. Spear, medical officer of health for the borough, said that chromate of lead is a poisonous substance, and that the small quantity in question would contain rather more than

six grains. It was a chronic poison, which accumulated in the tissues of the body, the bones, the liver, and the brain, and produced paralysis, and sometimes death. Even if the person who took it recovered, it might produce permanent injury. He believed it would be exceedingly dangerous for a child to eat a halfpennyworth of this confection daily for a few weeks.—Defendant said he had just started in the business, and had had no experience of the trade. He engaged a man who had a thorough knowledge of the business, and he (defendant) expected that vegetable colours were used. He did not know how the man happened to take the wrong bottle; but he was having a cart painted just now, and the man took the wrong bottle, which was used for mixing yellow paint for the cart.—The Bench imposed a fine of 5*l.*, or two months' imprisonment.

STAMFORD.

DENTISTS AND THE JURY LISTS.—At the Stamford Petty Sessions on September 27, Mr. Fields, chemist, Scotgate, claimed exemption from serving on juries under the 20th section of the Dental Practitioners Act, he being a registered dentist. The magistrates having read the clause of the Act referred to, ordered his name to be struck off the jury list.

THE SCHOOL OF PHARMACY,

Bloomsbury Square.

OPENING OF THE SESSION.

THE distribution of prizes for the past session and the opening of the new session of the School of Pharmacy occurred in the theatre of the Pharmaceutical Society on the evening of October 1. Mr. G. W. Sandford, President of the Society, took the chair at half-past 8, and the room was crowded with an enthusiastic audience, including a fair proportion of ladies. Professors Redwood and Attfield described briefly the sessional work and the examinations. Professor Bentley was unavoidably absent in consequence of his duties as Dean of King's College.

Professor Redwood, in view of the varied and large amount of business that had to be transacted in a single night, briefly commented upon the merits of the successful candidates in his department. He observed with pleasure that competition for prizes had been more general, which was an indication that the students now obtained a more thorough preliminary education before they came to that school: they were better prepared, and were in consequence more successful.

Professor Attfield congratulated himself and his colleagues on the very satisfactory audience before whom he had to appear. The number of students in the laboratory had been 5, whose average period of work had been six months each; the number of hours occupied daily during that period was three and a half, being decidedly less than the working time of the previous session. Neither this, nor, indeed, the last compared favourably with previous sessions in that respect. There had been a regular terminal examination extending over two days, but in one way or other he had examined the men for more than 200 days during the course of their study. He strongly urged that the professors' periodical examinations throughout the session should count in the adjudication of position at its close. The Botanical report stated that in the first course examination there were 5 candidates; in the second there were six; and at the terminal examination, 14.

The following were the students who received prizes:—

CHEMISTRY AND PHARMACY (Professor Redwood).

Five Months' Courses.

First Course.

Bronze Medal	James B. Lillie Mackay
Certificates of Merit... ..	Frank Harris Alcock.
	Beresford Frederick Harold
	Maudson.
	Edward Jarrett Eaton.
	James Henry Allan.

Second Course.

Bronze Medal	Thomas Horton.
Certificates of Merit... ..	Henry William Drew.
	William Herbert Hyatt.
	George Wale.
	William Inchle Gulliver.

Ten Months' Session.

Silver Medal	James B. Lillie Mackay.
Certificates of Honour	Thomas Horton.
	Edward Jarrett Eaton
	James Henry Allan.
Certificates of Merit... ..	Frank Harris Alcock.
	Henry William Drew.

PRACTICAL CHEMISTRY (Professor Attfield).

Silver Medal	Frank Harris Alcock.
Bronze Medals	Frederick Walmsley Warrick.
	Robert John Price.
	Edward Jarrett Eaton.
Certificates of Merit... ..	James B. Lillie Mackay.
	William Inchle Gulliver.
	Beresford F. H. Maudson.
	Thomas Horton.

BOTANY AND MATERIA MEDICA (Professor Bentley).

Five Months' Courses.

First Course.

Bronze Medal	James B. Lillie Mackay.
Certificates of Merit... ..	Fred. Wm. Ed. Shrivell.
	Frank Harris Alcock.
	James Edward Williams.
	Edward Jarrett Eaton.

Second Course.

Bronze Medal	Thomas Horton.
Certificates of Merit... ..	Henry William Drew.
	William Inchle Gulliver.

Ten Months' Session.

Silver Medal	James B. Lillie Mackay.
Certificates of Honour	Thomas Horton.
	Frank Harris Alcock.
	Henry William Drew.
	Edward Jarrett Eaton.
	James Edward Williams.
Certificates of Merit... ..	William Inchle Gulliver.
	Fred. Wm. Ed. Shrivell.
	James Henry Allan.
	Pereival C. Powrie.
	Isaac Leach.

Botanical Prize (for Herbaria).

Silver Medal	Thomas Frampton Perkins.
Bronze Medal	Charles Walker.
Certificate of Merit... ..	William Francis Norman.

The Council Examination Prizes.

Mr. Southall and Mr. Moss had conducted these examinations.

Pereira Medal (silver), and Books value 5*l.*, presented by Mr. T. H. Hills.

Frank Harris Alcock.

Pharmaceutical Society's Medal (silver), and Books value 3*l.*, presented by Mr. T. H. Hills,

Marshall Leigh.

Pharmaceutical Society's Medal (bronze), and Books value 2*l.*, presented by Mr. T. H. Hills.

Henry Allen.

THE JACOB BELL MEMORIAL SCHOLARSHIP.

Mr. Taylor said he must again express, as he did last year, his surprise and disappointment that these prizes received so little attention and attracted so few competitors. These scholarships were worth nearly all the other prizes put together, and yet there were only 11 competitors; of these 11, eight were from London and one each from Nottingham, Brighton, and Manchester. The successful candidates were Mr. William Elborne and Mr. John Thomas.

The President, who presented the prizes to the various competitors, addressed a few encouraging words to the students generally, and then called upon Dr. Tilden to deliver the

INAUGURAL SESSIONAL ADDRESS.

The Doctor is not the first man, nor will he be the last, who has groaned over the difficulty of offering moral reflections to young men.

The formula is necessarily this: My dear friends, some of you have gained prizes—that shows diligence; some of you have not—but never mind. Accidents will happen, and I advise you to persevere. That was, of course, the opening, and the students were next advised to follow the bent of some special inclination, for there was no prophylactic so potent, no remedy so sure against the inevitable weariness which sooner or later overtakes the mere idler or seeker after pleasure. Increased knowledge would create true self-respect, and it was best to find one's hobby in one's own business. The old-fashioned pharmacist, such as was represented by the late Henry Deane, sought his chief delight in his immediate occupations, and he and many others had prospered in their day and generation.

Though pharmacy was a trade it was based on skill and knowledge, and was capable of many professional adaptations. The best way to advance pharmacy was steadfastly to promote the cause of higher education, and that would place the pharmacist in a position in which he could not be assailed. Who was so well fitted as he by his special training to become the public adviser upon all questions connected with sanitary affairs, to investigate cases of poisoning or adulteration? But the public was not to be blamed because it failed to appreciate at their due value professional services emanating from behind a barricade of articles more suitable to an Italian warehouse or a fancy bazaar. The lecturer concluded with a direct personal appeal to the students who were on the eve of commencing their studies. They were not to be led astray by a disposition to regard every question from the so-called practical point of view, and they would find it the surest method of preparation to learn very thoroughly the subjects on which they were to be examined, and for the time being no others.

Subjoined is the address in full.

LADIES AND GENTLEMEN,—The Council of the Pharmaceutical Society of Great Britain has done me the honour to request that I would address a few words to the assembled students on this interesting anniversary. Those who have preceded me in this position upon corresponding occasions have been, every one of them, men older in years than myself, of wider knowledge and experience, and, above all, distinguished practitioners of pharmacy; but, I think the Council did wisely to engage, once in a way, the services of one who, whilst retaining distinct and pleasurable recollections of his association with pharmaceutical students, has in the course of events so far severed connection with the pharmaceutical body that he can look upon their proceedings from the standpoint of an outsider. Notwithstanding misgivings as to my individual fitness for the post, I did not hesitate to accept the invitation of the Council, because I was anxious to testify to all my good friends here my reciprocation of the kind feelings which led to the proposal. I had no better way of expressing my thanks than to accede to the request.

HONOUR TO THE VICTORS.

We are met together, as every one present is aware for the express purpose of doing honour to the students attending the courses of instruction in this institution. In the name of the Council, the professors, and officers of the

Society, I have first of all to express to those students who have just received their prizes at the hands of the President, most hearty congratulations upon the success with which their labours have been crowned, and to wish them prosperity in the career upon which they are now about to enter. Gentlemen, you are justly proud of the honours which are the reward of your industry. You are justly gratified at the approbation of your friends. You have listened, I doubt not, with quickened pulse to the praises pronounced by your professors. You have received the applause of this great meeting. I am sure that the memory of these things will abide by you, and when, in future years, some of you may appear as spectators at a renewal of this scene to celebrate the successes of those who will come after you, you will all feel stirred, as we do to-night, with a sympathetic triumph.

ENCOURAGEMENT FOR THE DEFEATED.

There is another class of students, for the moment less distinguished, but in general equally deserving of respect. I mean the students who have not received prizes—to whom, I feel also, every one present will desire that I should say a few words of encouragement.

Do not despair, my friends, because you have no trophies to carry away with you. If you have worked steadily, with an honest desire to learn, you have gained that which will serve you more usefully in the battle of life than prize-books or certificates. You carry with you the recollection of conflicts with self, of struggles against difficulties apparently insuperable, of encounters with temptation in which you have come off victorious, and these experiences, added to even a moderate amount of professional knowledge, will make good and useful citizens of you. But my belief is that we may anticipate something even better than this. When I look back through the prize-lists of past years, I see there many names that have since become distinguished in the ranks of pharmacy, and when I remember that in the competition for prizes there is often but a small, and sometimes a scarcely discernible difference between the merits of the best man, who gets the prize, and the second best man, who does not get it, I feel satisfied that of the majority of the students of this institution we have not heard the last when they take their leave of the place.

HAVE A "HOBBY."

But I must not forget, gentlemen, to urge upon you all, whether prize-takers or not, the importance of seriously and systematically continuing your studies. I do not mean to say that I would advise every one to go on working away at the whole range of subjects to which your attention has been directed in your progress through this school. It is now the time when each of you may follow the bent of his own inclination. I do not say I hope you will choose chemistry or botany or therapeutics, or any other branch of science in particular, but I am myself deeply impressed with the necessity for a reasonable interest—call it a "hobby" if you like—to every reasonable man. And I ask you to take my word for it there is no prophylactic so potent, no remedy so sure, against the inevitable weariness which sooner or later overtakes the mere idler or seeker after pleasure.

Some of you probably think you have learnt a great deal since you came here. Relatively to your former state of ignorance that is no doubt true, but after all what you now know by comparison with what you have yet to learn is a mole-hill to a mountain. Do not suppose I wish to disparage. This is merely the condition of everyone in this room, professors (if they will forgive my saying so) and all, and the wisest man is he who recognises this somewhat humiliating fact the soonest, and does his best to add to his little heap.

What is the use of all this? I will tell you presently some of the so-called practical uses, but in the meantime I want just to remind you that increased knowledge will give you a treasure which, in one way at least, is better even than a good balance at the bank. It will give you self-respect. I do not mean conceit, that peculiar and special vice of half-educated people. I mean by self-respect that kind of self-knowledge which enables a man to estimate his own powers at their true value, avoiding, on the one hand, exaggerated distrust on the score of defects perceived, and, on the other hand, undue exaltation by reason of conscious ability.

MAKE PHARMACY YOUR "HOBBY."

But I would impress upon you young pharmacists the importance of finding your "hobby," if possible, in your business. If you make your business the real occupation of your life, it will certainly yield you a harvest, not merely of internal satisfaction—a reward rich enough in itself—but tangible advantages such as commend themselves to the commercial mind are equally certain to accrue. This is true of every calling in life. It is almost a truism. But in its special application to pharmacy I want to speak a few words. The old-fashioned pharmacist, represented in my memory by the late Henry Deane, was a man with a soul, but not above his business. I know that, happily, some of the race remain. Such a man knows the contents of every bottle and drawer in his shop, not merely in regard to cost and retail price, but the entire history and precise quality of each particular sample. He buys no concentrated abominations whilst the roses, long innocent of any tint but brown, moulder in their dusty corner. His aromatic waters are distilled and have no acquaintance with calcined magnesia. He has his own views on the proper season for the preparation of liquor taraxaci and makes it with his own hands. He knows what medicinal plants grow in his own neighbourhood, and he prefers to make his own extracts of henbane and conium. I spare you the rest. You know how much more I might say, but if you have any doubt whether this kind of thing pays, look round at any such men you can find and judge for yourselves of their prosperity.

TRADE OR PROFESSION.

But there is another aspect of the same question. Some years ago a remarkable paper was read at the Pharmaceutical Conference by Mr. Joseph Ince. Everyone present will understand that I refer to the essay on "Pharmaceutical Ethics." In that paper Mr. Ince did not hesitate to declare unreservedly that "pharmacy is a trade," and in a meeting which included many of the most able, and not a few of the most influential of living pharmacists, there was no dissentient from that view of the matter. So far as I am able to judge, and in spite of Acts of Parliament since devised to regulate the practice of pharmacy, the occupation of the pharmacist is not materially changed since 1866. But it appears to my humble judgment that this dictum of Mr. Ince's, whilst absolutely and literally true, does not cover the whole of the facts of the case. The pharmacist is a tradesman, but interwoven with his trade is a multifarious system of transactions involving the employment of knowledge and skill, gathered through the somewhat prolonged course of training, which at present culminates in the examinations of this Society. And it is a question in my mind whether the ideal pharmacist ought to be purely a tradesman.

FUTURE PROSPECTS.

When the time comes, as I believe it will come, and perhaps very soon, the pharmacist who desires to do so will be in a position to make his election between a kind of business represented by the shop on the one hand, the mere drug-store bringing according to the accounts of the grumblers neither honour nor profit; and on the other hand a calling in which he will have due exercise for what professional skill he may possess and gather his income somewhat in accordance with the customs prevailing in other professions. But this will not be done by railing at the law, the public, or the doctors. A young man having passed his examination, whether it is the Minor or the Major, is not entitled on that account to regard himself as an unrecognised and unrewarded benefactor of the human race. He has suffered all this toil and expense, not, I apprehend, for the good of mankind, but because he knows there is at the end of it a monopoly, such as it is, of a certain calling reserved for him by the law. I know the reply which is almost upon the lips of some of my hearers. Look at the state of trade, look at the cheap drapers and grocers, who destroy all one's profit, and then the co-operative stores!

Let us look at this calmly for a few minutes. So far and so long as the pharmacist is a trader, he must take with other traders the chances of competition and the stores, and he must submit to the neglect of what is called "society." I know not what may be the end of all this, and I question

whether in this room there is a prophet who is qualified so far to prophesy. But it is perfectly clear to my mind that no amount of remonstrance, be it never so reasonable, no amount of reproach, be it never so vehement, will prevent the public from supplying themselves in any way which the fashion of the moment renders the most acceptable.

It appears to me that the pharmacist will be more likely to improve his position by stedfastly promoting the cause of higher education, and by maintaining an attitude of dignity in that professional citadel in which he cannot be assailed, and into which, sooner or later, I believe he will not only be obliged to retreat, but will find it his best interest to do so. In plain English what does all this mean? I figure to myself a time when the pharmacist will leave to his neighbour, the grocer, the sale of such commodities as starch, mustard, pepper, cigars, British wines, aerated waters, quack medicines, and all such trumpery; when he will no longer dispute with the hairdresser the trade in toothbrushes, pomade, and shaving soap, and will no longer think it necessary to deck his pharmacy with glittering smelling-bottles or chest-protectors in bright array; when the plate-glass front shall disappear from without, and the counter with at least half the mysterious, and often meaningless, gold labels from within.

But I know that all this sounds unpractical, if not impossible. I admit that it is very largely so at the present moment, but not, I venture to think, in the immediate future. I am aware that after taking away from the pharmacist the whole or nearly the whole of his trade, the residue of pure pharmacy and dispensing practice remaining over would, in too many cases, be sadly unproductive of income. Although these should undoubtedly constitute the chief avocation of the pharmacist, yet I may be permitted to remind you that the chemist and druggist and the pharmaceutical chemist have contrived to secure to themselves the patent of a title which Sir Humphry Davy himself, unless he happened to be on the pharmaceutical register, would not now be suffered to use unchallenged. Does not this suggest something? It points, I think, unmistakably to a development which the pharmacist, with due qualifications, has within his reach. Who so well fitted as he, by his special training, to become the public adviser upon all questions connected with sanitary affairs, to investigate cases of poisoning or adulteration? What is there to prevent him from in time supplanting the half-informed medical officer of health, and the too often incompetent public analyst? If he wishes to get a further stamp put upon his qualifications, either for his own gratification or for the satisfaction of his clients, there is the Institute of Chemistry ready to examine him. I should be taxing your patience too severely if I were to attempt to enter into further detail upon this topic, which, however, appears to me to be worthy the deliberate and serious consideration of all pharmacists, but more especially of you students who are about to commence your professional career. I do not say you are driven to anything of the kind I have endeavoured feebly to picture. If you prefer it, or find it advantageous in the pursuit of that indispensable commodity, a sufficient income, or for other reasons find no escape from the prevalent form of general business, no one can question your right to do as you think fit; but I ask you as reasonable men whether you can be justly surprised that a generally ignorant, always unreasoning and careless, public should fail to appreciate at their due value professional services performed, and professional opinions pronounced, behind a barricade of little articles that would find their appropriate place in an Italian warehouse or a fancy bazaar.

THE VALUE OF KNOWLEDGE.

But my task is only half accomplished. I should be neglecting a most important part of my duty if I omitted to address myself to those who are about to commence or to continue their studies to-morrow. There is but one golden rule for the student, and that is, learn all you can and learn it thoroughly. Some there may be here who feel disposed to question the utility of all this chemistry and botany that the pharmaceutical student is now expected to learn. I can only assure you that if you will but wait patiently you will discover in time a practical application for every scrap that you can gather of this seemingly superfluous knowledge, and

wish you had more. When it was my fortune to have to do with pharmaceutical students they were invariably most earnest, painstaking, and industrious, and I have no doubt that these qualities still form their most prominent characteristics. They were, however, liable to one or two little weaknesses which I dare scarcely hope have since disappeared. My attention was very frequently drawn in those days to a disposition to regard every question from the so-called practical point of view, a certain degree of restlessness being too often manifest when anything like general theoretical questions came to be discussed, unless they happened to bear in the most direct and unmistakable manner upon some subject of every-day life. I do not mean to imply that this is a peculiarity of pharmacists or of pharmaceutical students, but merely that they are not free from this which is the characteristic error of most practical men. I remember a speaker upon some occasion—I cannot now remember the who, when, or where—took upon himself to declare that there was no such thing as *pharmaceutical chemistry*. Such an expression sounds a little startling, but the meaning of the speaker was probably this, that the broad principles of science remain the same no matter what application you propose to make of them, and that without a knowledge of these principles you may know the whole of *materia medica* from beginning to end and yet be absolutely ignorant of chemistry; you may be familiar with the name and even with the aspect of every flower of the field and have no claim to be considered a botanist. Science does not consist in mere manual dexterity, neither does it consist in a knowledge of any number of hard names. One of the most serious consequences of neglecting all but what lies close at hand is this, that whilst you may learn to perform with the most punctilious accuracy all kinds of individual operations, you remain almost as incapable as ever of coping with any unexpected difficulty, and you are quite unable to assist in making the advances which pharmacy, in common with every other human art, must continue to make if it is to survive.

TRUE AND FALSE "CRAM."

There is just one other topic, in conclusion, to which I must advert. We have all heard a great deal in this room and elsewhere about that ugly word "cram." Now whilst I sympathise with nearly all that has been said and written upon the subject, and whilst I deplore the existence of a system so destructive, I think there has been just sufficient ambiguity in the use of the term to make some students feel the denunciations rather too wholesale and somewhat indiscriminate. There are two sorts of "cram." The one is both foolish and dishonest. But although, I suppose, we must admit that it is sometimes practised by candidates for pharmaceutical examinations, I have so much confidence in the skill and experience of our Board of Examiners, that I do not believe the system meets with greater success here than at other institutions, or even so great. I need not enter now into details, because the subject has been discussed over and over again *ad nauseam*. But I would just suggest to those young men who propose to devote that portion of their time which should be spent in the acquisition of knowledge to the invention of schemes for cheating the examiners, that it will be to their own interest to credit the examiners with just a little common sense as well as knowledge of their business, or they may find out to their disappointment that the Board is not made up, as they fondly suppose, of a pack of idiots like themselves. The legitimate process, on the other hand, is that kind of cramming to which every student must resort if he wishes to pass a given examination safely and honourably. This process consists in nothing less than learning very thoroughly the subjects in which he is to be examined, and for the time, no others. It seems to me unreasonable to complain of a student because he declines to make the attempt to study the whole of a text-book, of botany for example, when the Board before whom he is to present himself for examination has previously announced that it intends to examine him in a portion only of that subject. It may fairly be assumed that the limit has not been fixed without due deliberation, and if the student honestly sets to work at the task assigned, that is all that can be expected of him. One cannot be said to know a subject well unless he is prepared to answer clearly and intelligently any reasonable question that may be

put to him in that subject, and therefore the most important thing to aim at is precision, without which a great deal of knowledge may become worse than useless for the purposes of examination, and, let me add, of practical life. From all which you will perceive that I am one of those persons who, whilst recognising the possible harm that may befall that rare phenomenon, the extraordinary genius, by reason of the existence of the examination system, yet hold the opinion that in the influence of the system upon the cause of education the good decidedly predominates.

NERVOUSNESS.

To candidates for examination let me add one hint. Supposing the student to have attained to an accurate knowledge of the subject, or that part of it in which he is to be examined, what reasonable grounds can there be for that excessive nervousness displayed by some candidates? If I were an examiner, a candidate in this condition would excite my suspicions at once. I should either suppose the nervousness assumed, with the object of deceiving me, or I should credit him with a knowledge of defects apparent to his own consciousness, though hidden from mine.

FESTINA LENTE.

And now, gentlemen, I need not detain you any longer. You are about to enter upon a period in your career, at once the most interesting and the most delightful. One word of caution. You all start off, I know, with a great stock of resolutions and good intentions. Take care they are not all wasted at the outset. In commencing an ascent the experienced mountaineer will start soberly, and pursue, at a steady pace, the path previously determined upon. The unskilful only tries short cuts, exhausts himself by spurts, or loiters, with the notion that it will be time enough to make up lost ground later in the day. Be advised in time. You have in your professors experienced and able guides. Follow them, act upon their instructions as to your journey, and do not be lured from the open path by people who tempt you with vain promises to relieve you of your labour. We who have climbed the same heights will watch your progress with unflinching interest. We know what are the difficulties you are likely to encounter and how they are to be surmounted. But we know, also, that the labour must be your own.

The President proposed a vote of thanks to Dr. Tilden, and the Vice-President seconded the resolution, which was carried by acclamation.

Dr. Tilden, in reply, said it had given him great pleasure to appear there on that occasion, and he esteemed it an honour to receive the invitation of the Council. He might have acquitted himself better if he had been called upon at a somewhat earlier date, because, coming tenth or twelfth in a succession of men who had occupied a similar position, it became increasingly difficult every year to say anything worthy of the acceptance of the meeting. And when it was remembered that the best men were always selected first, it would be seen that those who came later had an additional difficulty to contend with. There were probably many parts of his address which might require further elaboration and explanation than he had been able to give, in order to make his meaning acceptable to members of the Society, and he felt that he had to some extent taken a liberty in attempting to express himself on some of the topics on which he had touched, but he hoped that any imperfections of that kind would be excused, for his intentions certainly were of the best.

"EVOLUTION."—It was Herbert Spencer who made the following definition of evolution:—"Evolution is a change from an indefinite, incoherent homogeneity to a definite, coherent heterogeneity, through continuous differentiations and integrations." It was the mathematician Kirkman who translated the definition into plain English:—"Evolution is a change from a nohowish, untalkaboutable, all-alikeness to a somehowish, and in-general-talkaboutable not-at-all-alikeness, by continuous somethingelscifications and stick-togetherations."

THE SOUTH LONDON SCHOOL OF PHARMACY.

MR. JOSEPH INCE ON PHARMACEUTICAL EDUCATION.

ON Tuesday, September 16, the South London School of Pharmacy at Kennington re-opened for the session. There was a fair attendance on the platform, the chair being taken by the Rev. Mr. Leale in the unavoidable absence of the Vicar of the parish.

The students, as usual, were seated in the places assigned to them in the laboratory, while the Secretary, Mr. William Baxter, proceeded both to read the report and to present the prizes which had been obtained at the close of the previous term. During the session 1878-79, 145 students entered the school-list, and of these 101 were classed for the minor examination. Of these, 70 passed their examination, 7 failed, and the remaining 14 did not present themselves, from illness or other causes. Out of 23 Major students, 3 passed, eight failed, and two did not go up; modified—two students entered, and passed; analytical students—12 entered, and in many instances have already secured valuable appointments; and as medical officers two students entered, of whom one has gained an official post. This term showed a percentage of 80-40 for the Minor examination; 69-00 for the Major, and 100 for the Modified. The minor chemistry medal had been gained by Mr. Crook, and a certificate by Mr. Grimble. Junior Chemistry—Medal, Mr. Roughton; certificate, Mr. Parkin. Botany—Medal, Mr. Roughton; certificate, Mr. Roughton; and the second certificate, Mr. Harburn. Materia Medica—Medal, Mr. Harburn; certificate, Mr. Roughton. Practical Pharmacy and Dispensing—Medal, Mr. Parkin; certificate, Mr. Roughton; while extra certificates in senior chemistry, botany, and materia medica went to Messrs. Betts, Dutton, and Remfry in the first; Mr. Hornsby in the second; and Mr. Godfrey in the third object.

Short addresses were made by Mr. Hunt, Dr. Farr, and the Rev. Chairman; and Mr. Joseph Ince, one of the visiting examiners, spoke as follows:—

"I regret that some of the prizemen are not here to receive their rewards in person, for it is certainly a pleasant thing to witness and to take a share in such an opportunity as this. More particularly must it be grateful to old students, before whose minds it will call up the recollection of their own struggles and successes.

"This distribution of rewards is a token and visible sign of the prosperity of last session—it is accompanied, judging from the applause so freely given, by the evidence of an ever-growing and spontaneous sympathy on the part of the school generally in behalf of their more fortunate companions.

"I hold myself, and have held consistently, that there is much such thing as failure attending continued effort, but that such effort invariably meets with its reward, though it may not come in the tangible guise of medals and certificates. I am not here this morning as an austere prophet or an ascetic; I have no intention of counselling too rigid a seclusion from amusement, or a too concentrated devotion to study. That is bad philosophy. But while asking you to fulfil your duties here as to the highest ultimate result, I would at this, the opening of a new session, congratulate you on the enjoyment of a golden period of your life, full of splendid possibilities and bright hopes; and would say to you, in the words of inspiration, 'Rejoice, O young man, in thy youth.'

There was a time when these sessional openings created very scanty public interest, and the speaker was not cheered by having to stand before so large an audience. Hardly more could be claimed for these gatherings than that they were assemblies where two or three met together.

That condition of affairs has passed away, and the reason for such an awakened feeling is not difficult to explain.

Up to within 11 years ago there was no compulsory education in England with regard to pharmacy. So strange does the fact appear as to be difficult of belief, and yet it is true that, while in most European capitals no one could set up as a pharmacist without a legal qualification, in England, before the date mentioned, anyone without restriction might embark on a pursuit which concerned the health and bodily safety of the community. Until a change in this strange

freedom was contemplated the existing pharmaceutical schools were sufficient—to a great extent they were even more than sufficient. But a rumour got abroad that new regulations were impending—quickly the rumour deepened into a certainty, and that which began as uneasiness on the part of pharmaceutical students culminated in a panic.

"For a few years previous this school at South Kennington had been quietly at work; attention had been gradually directed to its mode of teaching; and when a compulsory Act of Pharmacy was a known fact, and but 12 months—the year of grace—intervened between its operations being carried into effect, the school was literally inundated by men crowding to the lectures. Systematic instruction in a regular manner was impossible. Dr. Muter and those associated with him did their best; and so it happened that the strong swimmers came safe to land, others escaped in various ways, and the rest were shipwrecked. I neither praise nor blame the occurrence; it was both exceptional and inevitable.

"From that moment there were two courses open—one to inaugurate a mere training-school, and to give just so much instruction as might secure legal qualification. Financially that would have been remunerative, and there was a strong temptation to embark on such an undertaking. In that case it could never have aroused public attention by becoming a great centre of technical education; no external interest could have been enlisted on the side of such an establishment. It was determined at once by Dr. Muter and those who aided him with their advice, amongst whom must be included the secretary, Mr. Baxter, to found a school which should be the home of sound systematic instruction: a school to which all students might resort with confidence who wished to gain a thorough knowledge of chemistry, botany, materia medica, physics, and allied sciences, and to receive a practical introduction to the duties of their after life.

"I am prohibited by the presence of Dr. Muter from saying all that is due to that gentleman. I am yet bound to allude to his sustained ability and energy in conducting the studies here, and to his enviable facility for explanatory address. I would point to the progressive character of his endeavours, and certainly to the construction and perfect arrangements of the laboratory in which we are assembled.

"Now, gentlemen, I mean to be remarkably short, and hasten to bring these remarks to a close. The honour and reputation of the school is in your keeping; let its honour be unstained, and its reputation handed down to your successors unblemished.

"I do not think that the intentions of the school are fulfilled when there is any lower aim than the Major qualification; moreover, under existing circumstances, the Minor standard has become insufficient for the well-being of the modern pharmacist. You will ask what is the value of the Minor grade? Will it secure all business rights and give sufficient knowledge to pursue our calling with safety and success? I answer yes: the possession of this qualification will satisfy legal requirements, and will serve the general purposes of a chemist and druggist. There it stops. By-and-by you will find that you want social position; standing in your own profession; and a standard of knowledge high enough to meet all circumstances that may arise—to turn them into account, to have them under your control, and, above all, to combat successfully the keen competition of the day. This only the knowledge represented by having passed the Major examination can secure.

"The present phase of commercial competition is co-operation. It is in our midst, it cannot be done away with, and we have no more power to restrain it than we have to influence the fall of Niagara. How then can this be met? I answer, Here. By bringing to bear against it all possible knowledge available at this school.

"Years ago I ventured to assert that the time would come when British pharmacists would have to rely on a knowledge of British pharmacy as the means for their support. That Utopian notion was condemned as unbusinesslike; it was described as 'science with starvation,' and as being a sure passage to the workhouse. The time predicted has arrived; let none be disheartened, but lay up now so broad a foundation that competition itself may be controlled and utilised to your own advantage.

"Finally, this school has a history—this is the opening of a new session, not the commencement of the institution. If

is for you to emulate the example of your predecessors, many of whom were satisfied with nothing short of excellence; and when hereafter captious voices are heard exclaiming that you came here simply to gauge the measure of what might *do*, and that your knowledge is superficial, let your personal conduct be the answer that the charge is false."

THE AMERICAN PHARMACEUTICAL ASSOCIATION.

THE members of the American Pharmaceutical Association assembled at Indianapolis on September 9 and three following days. President Luhn, of Charleston, read his annual address, and then retired in favour of Mr. George W. Sloan, of Indianapolis. A good deal of discussion took place on financial matters, the Association scarcely paying its way. It was resolved to economise in some points, and to seek to extend the membership. It was also resolved to form a Business Council, so that the general body shall be able to devote more time to the discussion of scientific matters. On the motion of Professor Remington, it was resolved to alter Article I. of the Association, striking out the words "the United States," and inserting in place thereof "America," so as to make the sentence read as follows: "Its aim shall be to unite the educated and reputable pharmacutists and druggists of *America* in the following objects." Saratoga Springs was the place selected for the next meeting, and the date was fixed for September 14, 1880.

We have been favoured with some advance sheets of the *American Druggists' Circular*, to which we are indebted for the following abstracts of a few of the papers read:—

PAPERS IN REPLIES TO QUERIES.

Eriodictyon Californicum.

Eriodictyon Californicum is receiving attention for its action in lung diseases and bronchial affections. What is its therapeutical value, and to what is its activity due? Make a chemical examination of it. Accepted by Charles Mohr, Mobile, Ala.

The writer, in his usual careful manner, made a very full examination of the plant, and the action of the various solvents in regard to the amount and quality of extractive matter. The properties are believed to be due chiefly to the resinous matter, which is best extracted by alcohol, to which it yields nearly 11 per cent. of its weight. It yields an ethereal extract of 15 per cent. and an aqueous of 19 per cent., but that which is taken up by alcohol seems more satisfactorily medicinal in its character.

Its apparent action is as an astringent and tonic to the bronchial tubes, but as a remedial agent in consumption he thinks it no better than many other panaceas whose uselessness was long ago proved.

Seneca Preparations.

Should not the fluid extract and syrup of seneca be prepared with an alkaline menstruum? Accepted by George W. Kennedy, Pottsville, Pa.

The writer stated that for the past seven years he had used an alkaline menstruum in making both the fluid extract and syrup of seneca, and has never during that time noticed a single instance of gelatinisation, and in but very few instances any precipitate whatever.

It also furnishes handsome and brighter-looking preparations, and is apparently more acrid and stronger. For 16 troy ounces of seneca root 3 fluid drachms of aq. ammonia are sufficient, and this amount is added to 2 pints of dilute alcohol. The finely-ground drug is prepared for percolation, and after the first 12 ounces of percolate have been obtained, the percolation is continued to exhaustion. The second percolate is evaporated to 3½ ounces, to which is added ½ ounce of alcohol, and this is added to the reserved percolate of 12 fluid ounces.

In making syrup of seneca, this alkaline liquid is used, but otherwise the process of the Pharmacopœia is followed.

Remarks on this subject were made by Professors Maisch,

Markoe, and Remington, also by Messrs. Ebert and Lloyd, all of them pointing to the advantage of an alkaline liquid. Mr. S. Campbell thought a stronger alcoholic menstruum with glycerine answered as well. Mr. Lloyd spoke of the fact that seneca root yields both salicylic acid and oil of wintergreen under certain conditions, though in very small quantity.

Testing by Solution.

On dissolving solids in water or in other liquids, a change of bulk is generally produced, consisting in nearly every case of an increase of volume. It is desired to work out a table of the changes of bulk produced by dissolving definite quantities of official solids in definite quantities of menstrua. Accepted by P. C. Candidus, Mobile, Ala.

The reply to this query was in the form of a table giving the results of over 100 careful experiments, which show a wide range as to the increase in volume caused by the solution of various salts in water and alcohol. Mr. Candidus promises a continuation of his experiments next year with numerous other substances.

Concentrated Liquors.

Can any of the decoctions or infusions of the United States Pharmacopœia be satisfactorily prepared from the fluid extracts of the United States Pharmacopœia, and in what particulars do they differ from infusions and decoctions prepared in the prescribed manner? Accepted by William Saunders, London, Ont.

This paper gave many detailed experiments, and the results of preparing infusions and decoctions from fluid extracts. When the fluid extracts are made with a menstruum of *dilute* alcohol, they may readily and satisfactorily be used to prepare both of the above weaker remedies but when the solvent used is *stronger* alcohol, and this be diluted with water to make it the same strength as an infusion or decoction, the general result is a persistent cloudiness or milky appearance, rendering it objectionable in dispensing.

(Note.—The conclusions of Mr. Saunders are based on experiments made with fluid extracts that are *strictly standard* in character, and are not, therefore, designed to aid and comfort those who are in the habit of buying *cheap* fluid extracts, and are too careless or indolent to make tinctures, infusions, and decoctions in the manner ordered in the U.S.P.)

Pyrophosphate of Iron.

Would the substitution of citrate of sodium for citrate of ammonium in the official pyrophosphate of iron make the latter less liable to become insoluble on keeping?

Professor Markoe stated that he had failed to prepare a reply to this query, but that there was no doubt that the sodium compound was far more stable in character, and is less valuable as a remedial agent.

Professor Maisch stated that he had a sample of the sodium compound with pyrophosphate of iron, and that was perfectly stable, and from the fact that it was as bright and transparent as ever, though it had been kept without any special care, he thought it as soluble as when first made.

The subject will be reported upon next year by Mr. Willie Caspari.

Cultivation of Foreign Drugs.

Are there any drugs now successfully cultivated here which were formerly obtained from foreign countries? Continued to H. S. Wellcome, New York.

Owing to his having been absent in South America, and recent return, Mr. Wellcome was not prepared to reply in full. He stated as the result of some inquiry, that he was unable to learn that any other drug than valerian was being successfully cultivated on any scale with an apparent profit or satisfaction.

Affinity of Glycerine for Water.

The affinity of glycerine for water is well known, what extent will official glycerine attract moisture being exposed to a damp atmosphere? Continued to George W. Kennedy, Pottsville, Pa.

The author exposed to the atmosphere of a damp cell

glycerine of specific gravity 1.23 and 1.26 in vessels of broad shape, also in narrow-mouth bottles, weighing the vessels at frequent intervals. In the first ten days the vessels of broad, open space had absorbed 4 per cent. of moisture, and this had continued until, at the end of ten months, the increase had amounted in the glycerine of 1.23 specific gravity, to 55½ per cent., and in the denser variety to 57½ per cent.

REVISION OF THE U.S. PHARMACOPŒIA.

Several papers were presented on this subject.

The introductory, by Mr. Charles Rice, is an admirable review of the subject, discussing the work already done and in process, and alluding to the changes in the character of the work itself. The proposition of the committee is to arrange the contents in alphabetical order, without any regard to the present division into materia medica and preparations; to do away with any mention of weights, substituting *parts by weight*, arranging these in the simplest ratios possible. Appended will be found some specimen formulas showing the arrangement in parts, but omitting the details of manipulation, which are a part of the formula itself.

The several reports presented as portions of the work so far as completed by Charles Rice (general report) are from C. L. Diehl, on "Fluid Extracts"; S. A. D. Sheppard, on "Syrups"; F. Hoffman, on "Chemicals"; J. M. Maisch, on "Materia Medica"; J. P. Remington, on "Tinctures"; W. T. Wenzell, on "Alcohol Table"; B. F. McIntyre, on "Wines and other Formulæ"; J. U. Lloyd, "Practical Formulæ for Numerous Preparations." They form a large mass of manuscript, which embodies the valuable labours of this Committee and their friends on the several subjects connected with the work.

Some selections are appended from the reports of C. Rice, J. P. Remington, W. T. Wenzell, and J. U. Lloyd. These are not to be in any way authoritative at present, but represent the personal views and conclusions of the several gentlemen who present them.

The work, as already presented to the Association at the meeting in 1878 and at the present meeting, will, by the liberality of the Colleges of Pharmacy and Pharmaceutical Associations, be at once put into print, so that those who are workers in this direction may be enabled to review and criticise the work preparatory to the final presentation of the report at the convention to be held in Washington in May next.

In preparing medicated waters, precipitated phosphate of calcium is proposed in place of carbonate of magnesia, for the purpose of diffusing volatile oils and similar materials for better solution in water.

Camphor Water.

	Parts
Camphor	4
Alcohol	4
Precipitated phosphate calcium	8
Distilled water	500

Ceratum Cantharidis.

	Parts
Yellow wax	7
Resin	7
Lard	10
Cantharides in very fine powder.. .. .	12

Liquor Arsenici et Hydrargyri Iodidi.

	Parts
Iodide of arsenic	1
Red iodide of mercury	1
Distilled water, sufficient to make	100

Liquor Ferri Persulphatis.

	Parts
Sulphate of iron	80
Sulphuric acid	14
Nitric acid	11
Distilled water, a sufficient quantity.	
Omitting the detailed particulars of the formula, the final product is	200

Preparation of Dilute Alcohol, Specific Gravity, 0.941 from Alcohol of any Strength.

From the table which is published in the United States Dispensatory, page 86, Prof. W. T. Wenzell has formulated

rules for the production of dilute alcohol from alcohol as is usually found in our market, which varies at times in strength several degrees.

The following table shows the proportions in which it should be mixed in order always to produce dilute alcohol, United States Pharmacopœia:—

SIMPLE RATIOS BY WEIGHT OF ALCOHOL AND WATER.

66° F. Sp. Gr.	77° F. Sp. Gr.	Alcohol	Water	60° F. Sp. Gr.	77° F. Sp. Gr.	Alcohol	Water
817	809	11	15	838	830	13	15
819	811	3	4	840	832	15	17
822	814	39	51	843	835	9	10
825	817	39	50	846	838	12	13
827	819	4	5	848	840	17	18
830	822	13	16	851	843	39	40
833	824	5	6	853	845	1	1
835	827	11	13				

TINCTURES OF THE U.S. PHARMACOPŒIA.

Professor J. P. Remington presented a very full report upon the tinctures, giving detailed formulas, some involving modifications, but all arranged upon the plan of simplifying processes as much as possible. The paper was accompanied by numerous specimens of tinctures made as proposed, as also by the residues of the exhausted drugs.

A few formulas are appended to show some of the changes proposed in strength or menstruum; also some not now official.

Tinctura Arnice.

	Parts
Arnica (passed through a No. 20 sieve)	20
Diluted alcohol, sufficient to make	100

The strength of the finished product is 1 in 5, and the menstruum is weaker in alcohol, which is thought to be an advantage.

Tinctura Buchu.

	Parts
Buchu leaves in moderately fine powder	20
Diluted alcohol, sufficient to make	100

To be prepared by percolation.

It is believed that for usual practice the diminished strength of the tincture will be advantageous.

Tinctura Cannabis.

	Parts
Indian hemp, moderately fine powder	1
Alcohol, sufficient to make	5

This alteration from the extract to the crude drug was believed to be advantageous, as producing a more uniform result, owing to the variable strength of the commercial extract.

Tinctura Cinchonæ.

	Parts
Yellow cinchona, moderately fine powder	20
Alcohol	65
Water	25
Glycerine	10

Mix the liquids in above proportion, and obtain by percolation a finished product of 100 parts.

Tinctura Cinchonæ Composita.

	Parts
Red cinchona	10
Bitter orange peel	8
Serpentaria	2
Alcohol	30
Water	15
Glycerine	5

Of this mixture use sufficient to obtain 50 parts.

The drugs are to be placed together in a mill and ground until reduced to a moderately fine powder.

(Considerable discussion ensued on the suggestion of again placing saffron in this tincture, but the general impression was against changing the formula in this respect.)

Tinctura Erythroxylon.

	Parts
Coca, in moderately fine powder.. .. .	1
Diluted alcohol, sufficient to make	5

Tinctura Eucalypti.

	Parts
Eucalyptus in moderately fine powder	1
Alcohol, sufficient to make	5

Tinctura Grindelia.

	Parts
Grindelia, in coarse powder	1
Alcohol, sufficient to make	5

Tinctura Guarana.

	Parts
Guarana, in moderately fine powder	1
Alcohol, sufficient to make	5

Tinctura Iodini.

	Parts
Iodine	1
Alcohol	10

Tinctura Kino.

	Parts
Kino	2
Alcohol	12
Water	3
Glycerine	3

Tinctura Rhei et Cardamomi.

	Parts
Rhubarb, moderately coarse powder	6
Cardamom, moderately fine powder	1
Diluted alcohol, sufficient to make	50

Mr. J. U. Lloyd presented a number of papers on special subjects which his laboratory experience has suggested as improvements on the official formulæ. These are mainly with the scale salts of iron, spirit of nitrous ether, ointment of nitrate of mercury, resin of podophyllum, iodide of mercury, and other of the chemical formulæ.

The report of Mr. S. A. D. Sheppard on "Syrups" is quite a lengthy one and full of interest.

The report of Dr. Frederick Hoffmann, as presented, comprises the chemical formulæ of those articles in the first portion of the alphabetical list, such as arsenic, antimony, bismuth, &c.

The report of Professor J. M. Maisch, while far advanced, was not presented at the meeting.

The reports and work of other members of the Committee, and other friends, are incorporated to some extent in the general report of the chairman.

SACCHARATED EXTRACTS.

C. S. N. Hallberg presented a volunteer paper on the above subject. The author reviews the various forms of medicinal preparations, such as solid and fluid extracts and powdered medicinal extracts. Presenting objections to these several forms, he thinks that a more equal and uniform preparation is the crude drug. The proposed new preparation is a powder of sugar of milk containing the extractive matter of the drug, and of such a strength that the finished product equals in weight the weight of the drug originally used; thus one grain of the saccharated extract will represent the same weight of crude drug, the inert matter being replaced.

PHARMACEUTICAL EXHIBITION.

A fine exhibition of pharmaceutical goods was on show, which was contributed to by many of the chief manufacturers in the United States. The collection of chemicals sent by Powers & Weightman, of Philadelphia, it is stated, required a whole freight-car to convey it.

PRICE'S PATENT CANDLE COMPANY (LIMITED).

A SPECIAL general meeting of the shareholders of Price's Patent Candle Company (Limited) was held on September 25 at the City Terminus Hotel to declare the usual dividend on the preference shares and to consider a requisition as to the appointment of a committee of shareholders to investigate the affairs of the company. Mr. T. Wright, the chairman, presided, and read the statement issued of

profit and loss account, showing that the manufacturing profit of the six months to June 30 last was 5,338*l.*, from which the interest on bonds (1,248*l.*) and income-tax (361*l.*) had to be deducted, leaving a balance of 3,729*l.*, which, with the balance brought forward, made an available balance of 10,758*l.* The dividend on the preference shares now to be declared would require 1,041*l.*, leaving in hand to be carried forward 9,716*l.* The chairman, in declaring the dividend on the 6 per cent. preference shares, said the manufacturing profit of the last half-year was less than in the corresponding period, when it amounted to 7,916*l.* This was principally because the trade of the half-year had "run" chiefly on sales of the cheaper kinds of candles, and on account of the depression prevailing in all classes of the community. Their business was going on in a steady way, considering the great depression which existed, and they were very well content with things as they were. Mr. Wedgwood, having seconded the motion, it was carried. The chairman then called on those who had sent in the requisition referred to to move their resolution. Mr. J. H. E. Smith accordingly moved for the appointment of a committee of shareholders to investigate the affairs of the company, to report the result to the shareholders, the expense of the committee to be borne by the company, and that a special meeting should be called to receive and consider their report. The directors had expressed surprise that such a meeting should be called, but they knew, he said, that at their last meeting they could not move a resolution of that kind. They took a similar course on a former occasion, in 1869, but a few weeks afterwards they put forward a statement showing a loss of 15,000*l.* on the half-year's trade. The following year a saving was effected of 17,000*l.*, and that was, he said, through the directors having been made to look into matters. He held that it was desirable that they should look into matters again more closely, and be helped by the committee, for which he asked. Other shareholders addressed the meeting, and at the close of the discussion the Chairman, in reply, said there was no doubt that the object of the requisitionists was to find fault with the management and to displace the Board. He denied that the reduction in expenses made in 1870 was the result of the requisition of 1869, and pointed out that the increase of capital had been rendered necessary by the increase of the business. As to their borrowing, the question was whether it was more advantageous to borrow money at 5 per cent. than issue preference shares at 6 per cent. He then put the motion, which was lost on the show of hands, the numbers being 40 for it and 47 against it. A poll was then demanded by the Rev. E. Hampson, and it was announced that the result would be declared on October 2 at the offices of the company.

The result of the poll was as follows:—For the motion, 10 personally, holding 1,368 shares; 120 by proxy, holding 4,295 shares; against the motion, 19 personally, holding 3,638 shares; 170 by proxy, holding 12,454 shares; showing a majority of 59 proprietors and 10,429 shares against the motion.

SULPHUR.—Consul Dennis, in his report on the commerce of Palermo for the years 1875–78, states that: "The greater part of the sulphur exported to the United States is employed in refining petroleum, and the abundant production of this oil has kept up the demand for sulphur until the last year or two, when Europe, being pretty well stocked with petroleum, the demand for brimstone on the other side of the Atlantic has fallen off. The average price of sulphur at Palermo during 1878 has been about 8*l.* 50*c.* a cantar, or, as 13 cantars make a ton, about 4*l.* 2*s.* a ton; but with the export duty and other charges, the average price has been 4*l.* 14*s.* a ton delivered free on board. . . . The export of sulphur has fallen off to a great extent; in 1875 it was valued at 101,760*l.*, in 1877, only 69,040*l.* This has been owing in a small measure to the competition of iron pyrites in the manufacture of sulphuric acid, partly also to the overstocking of the markets in former years, but more than all to over-speculation in Sicily, which, while it has not diminished the quantity exported, has greatly depreciated the value. At Palermo the produce of the mines of Lercara alone is shipped, or from 15,000 to 16,000 tons annually, which forms but a small portion (one-seventeenth only) of the entire production of the island."

W. A. TILDEN, D.Sc.

THE selection of Dr. Tilden to deliver the inaugural address to the students of the Bloomsbury Square Pharmaceutical School was not, perhaps, altogether unalloyed with that worldly wisdom which even such an exalted body as the Pharmaceutical Council is permitted to exercise. There is a good deal of keen educational competition about just now, and in Dr. Tilden the School is able to show a brilliant example of its success. But it would not be fair to attribute the invitation to Dr. Tilden to commercial motives only, or even chiefly. It was a very natural and well-won compliment, paid to an old student of the school whose subsequent career had won honours for his *alma mater* as well as for himself. Himself a distinguished pupil of the school, it was appropriate that he should offer counsel to those about to enter upon their pharmaceutical career. Some of the listeners may like to read how a continuous line of study, worked out in an uninterrupted manner, has met with its reward.

Dr. Tilden commenced the study of pharmacy under the guidance of Mr. Allchin, then of Barnsbury, in 1857. During the years immediately following he attended the lectures at Bloomsbury Square and at the College of Chemistry. In 1861 he was successful in the first Bell Scholarship competition, and the present writer has a very respectful remembrance of the confidence with which the other candidates regarded Mr. Tilden's chance, and the hopelessness with which they contemplated their own, in view of the methodical and workmanlike manner in which he disposed of the various subjects of examination.

After his session in the pharmaceutical laboratory, and having taken the silver medal for chemistry and pharmacy, Mr. Tilden spent a year as junior assistant in Dr. Stenhouse's laboratory. In October, 1863, he was appointed Demonstrator at the Pharmaceutical Society's laboratory, and this position he filled for nine years with the highest credit to himself, securing the gratitude of perhaps every student who passed through the curriculum there for his patient and painstaking attentions. In 1869 Mr. Tilden took the degree of B.Sc., at the University of London, and two years later he crowned his laborious studies by taking the degree of Doctor of Science. Shortly afterwards he was appointed Lecturer on Chemistry in the new and somewhat aristocratic college at Clifton.

From 1863 to 1872 Dr. Tilden was actively engaged in teaching both at the Square and in private classes of his own—notwithstanding which he had the courage to present himself for the official examination, and himself to undergo that ordeal for which he had prepared so many other students. In 1872 he obtained the Major certificate in a way which must have been as satisfactory to himself as it was to his examiners; and was enrolled as a pharmaceutical chemist shortly before he resigned the office of Demonstrator, on which occasion he received a complimentary dinner and address.

Dr. Tilden's thoughtful exposition of the "Principles of Chemical Philosophy" showed that his method of teaching science was by no means of a mechanical character. Besides this work Messrs. Longmans are now about to publish, we believe, a treatise on "Qualitative Analysis" from his pen. Dr. Tilden has also made leisure to pursue several series of elaborate chemical researches.

His first paper was on "The Purification of Essential Oil of Almonds," *Ph. Journ.*, vi. (1865), 407: an attempt to show that oxidation was retarded when the purified oil was desiccated by means of calcium chloride. The value of the process was confirmed by an examination made, two years later, of the specimens originally prepared in 1864. Mr. Umney, moreover, recorded his testimony in its favour, *Ph. Journ.*, viii. (1866), 325.

The subject naturally led to experiments on Scheele's acid, which resulted in a note on "The Strength of the Hydrocyanic Acid of Pharmacy," *Ph. Journ.*, ii. (1871), 81. One of Dr. Tilden's first purely literary efforts was a review of Scheele's "Chemical Essays," "Year Book" (1870), 418, and his lecture before the British Pharmaceutical Association, February 14, 1873, was on "The Discoveries of Scheele." In what way the general subject of essential oils has been kept in view by the author is shown by the paper contributed to the British Pharmaceutical Conference at Plymouth in 1877. The communication was entitled "Essential Oils," with special reference to the hydrocarbons contained therein. In the Chemical Society, alone, or in

conjunction with Dr. Armstrong, he has investigated the physical properties of a number of terpenes, and some of their derivatives: and as a sequel to a preliminary paper (*Chem. Soc. Journ.*, June, 1878), appeared statements relating to Terpin and Terpinol, published in the same journal, June, 1879. It is this continuity of research on which Dr. Tilden's success is based. All pharmaceutical readers are familiar with his contribution to "The Chemistry of the Aloes." The first of the series was "A Few Notes on Aloes," "Year Book" (1870), 418. The subject was continued in 1872 at the Conference at Brighton; in 1875 at Bristol, as "Further Researches on the Crystalline Constituents of Barbados and Socotrine Aloes"; and again in 1876 at Glasgow, under the head of "The Therapeutic Value of the Aloins."

The advent of a new British Pharmacopœia was fertile in awakening controversy. Amongst other writers, Dr. Tilden gave his ideas "On Recent Changes in Chemical Notation and Atomic Weights." These were contained in three

papers, *Ph. Journ.* ix. (1868), 525, 579, and x. (1868), 7. In the concluding one the writer fell foul on graphic formulæ. "The mind," he observed, "has naturally more than sufficient tendency to materialise in surveying questions connected with the manifestation of chemical force without being propelled in the same direction by the constant employment of pictorial formulæ," and in his summary he reminded his readers of the necessity to "prove all things, and hold fast only that which is good."

The two essays "On the Constitution of Matter," *Ph. Journ.*, xi. (1870), 410, 471, were perhaps the first steps to Dr. Tilden's book published in 1876, "An Introduction to the Study of Chemical Philosophy." The series called "Chapters for Students" were continued during the years 1870 to June, 1872, being chemical notes to the Pharmacopœia—abundantly illustrated by equations expressing various decompositions. A paper "On Chloral," *Pharm. Journ.*, ii. (1871), 341, 402, described its manufacture, chemical characters, behaviour and analysis. Amongst Dr. Tilden's happiest efforts in composition were his reviews contributed to a tractate called "A Century of Old Books." This came out at Liverpool, and contained no more readable sketches than



"Basil Valentine: His Triumphant Chariot of Antimony," or Gerard's "Herbal."

We have much pleasure in joining Dr. Tilden's portrait to this short notice of his scientific career, which, we may fairly hope, has not even yet reached its zenith.

HEARING AND SOME OF ITS DEFECTS.

THE ear is one of the most important special senses; without it even speech would be useless. When in perfect action what a wonderful world it opens up, making us sensible of sounds, which, though not always agreeable, yet lead up to some of the most refined and exquisite conceptions with which music can supply us. Deaf people generally have a more or less stupid unintelligent look, which betrays them, and which, if dating from early life, makes them slow or unready with their intellectual processes. Before dealing with disease, it will be necessary briefly to consider the anatomy and physiology of the organ of hearing.

Only one part of that organ can be seen, the outer portion, with an opening leading from it internally. This somewhat elliptical portion is called the pinna, and is extremely irregular in shape in order to catch sounds coming from all directions, and to reflect them down the opening called the external meatus. The greater part of this pinna is formed by cartilage covered by skin, but at its lower part is a small portion very soft, free from cartilage, called the lobule, and which is the part pierced for ear-rings. The various parts of the pinna or auricle have special names; thus the two prominent rims running one within the other, and having a depression within them, are called helix (the external) and anti-helix (the internal). The hollow included and bounded by those two rims is the concha, out of which leads the external meatus. In front of this concha is a triangular-shaped projection called the tragus, and is the part we push into the meatus with a finger when we wish to stop the ear to prevent the entrance of sound, and exactly opposite this is another small projection called the antitragus.

The external meatus, or external auditory canal, leads from the concha to a membrane stretched across its inner boundary called the membrana tympani—it is about $1\frac{1}{2}$ inch in length, and does not pass directly inwards, but in a direction forwards and inwards, which is very important in connection with extracting foreign bodies or syringing the ears. It is also slightly bent, so as to be higher in the centre than at either extremity. About half-an-inch of this canal is formed by cartilage; the remainder by bone, and lined in its whole extent by a process of skin, which is continuous with that lining the pinna. In the cartilaginous part are situated the peculiar glands secreting the cerumen or ear-wax, which by accumulation gives rise to deafness. The pinna and meatus together constitute the external ear, the function of which is to gather the vibrations from all directions, and transmit them to the deeper portions. In animals the ears are freely movable, and in man the same muscles exist, but through non-use lose their power, although by attention the power may sometimes be recovered. In man the head is easily turned in the direction of sound; moreover, he has previous experience to guide him, and the peculiar shape of the pinna enables the vibrations to impinge upon some part of it, and so be reflected down the meatus.

The middle ear often goes by the name of the drum or tympanum; it is bounded externally by the tympanic membrane, which is stretched across the bottom of the external meatus, internally by the outer surface of the internal ear. It communicates behind with a loose open network of cells contained in the nipple-like process of bone felt just behind the pinna, and named the mastoid bone; in front there is a canal called the Eustachian tube, which opens into the throat just behind the posterior orifices of the nose, and by this means enables the air, with which the tympanum is filled, to communicate with the external air. The use of this is well exemplified when the outer ear is exposed to an increased atmospheric pressure, as in the diving bell, the tympanic membrane is pushed in and pain is the result. By simply swallowing, which opens the Eustachian tube, it being closed

at other times, this is at once relieved by restoring the balance of pressure on the inside, by admitting the compressed air. The tympanic cavity is traversed by three small bones, called respectively, malleus, incus, stapes, from their resemblance severally to a hammer, anvil, and stirrup. The handle of the malleus is attached to the membrana tympani, and so moves with every vibration of that membrane; the incus is firmly attached to the malleus, and to the long process of this is firmly fixed the stapes, the base of which is attached to a membrane closing an opening called the fenestra ovalis, situated on the inner wall of the middle ear, and opposite the membrana tympani. It will easily be seen that any vibration of the tympanic membrane is transmitted through this chain of bones (*Ossicula auditus*) to the fenestra ovalis, which opens into a part of the inner ear called the vestibule. Below and behind this fenestra ovalis is another opening, called the fenestra rotunda, and leading to a part of the inner ear called the cochlea.

The internal ear or labyrinth is a very complicated arrangement of osseous and membranous portions, for the ultimate spreading out of the fibres of the auditory nerve, by means of which all impressions conducted so far are conveyed to the brain. It consists of three parts, called vestibule, cochlea, and semi-circular canals. All these parts are hollowed out of a bone called the petrous portion of the temporal, and lined by membrane, and it is on this latter part that the auditory nerve is finally spread out.

The vestibule is the central cavity of the internal ear, being situated between the semi-circular canals behind and the cochlea in front. It is somewhat ovoidal in shape, and has on its outer wall the fenestra ovalis, with the stapes attached; on its inner wall is a small circular depression, fovea hemispherica, which is perforated at its anterior and inferior part by filaments of the auditory nerve.

The semi-circular canals are bony canals, situated above and behind the vestibule. From their position they are named superior, posterior, and external or horizontal. These canals describe the greater part of a circle, and each presents at one extremity a dilated part called the ampulla. They open by five extremities, the superior and posterior having two of their orifices blended into one. The cochlea forms the anterior part of the labyrinth. It consists of a central axis, the modiolus or columella; of a canal wound spirally round the former for two-and-a-half turns, called the spiral canal; and a delicate lamina dividing the canal into two parts. This lamina is called the lamina spiralis. One of these canals communicates with the vestibule, and is therefore called the scala vestibuli; the other communicates with the tympanum by means of the fenestra rotunda, and is named the scala tympani; between these two is a third, the scala media. The cochlea, as suggested by its name, is somewhat conical in shape, like a common snail-shell, its base resting on the internal meatus, or canal which transmits the auditory nerve from the interior of the skull to the cochlea. At the apex there is a communication between the scala vestibuli and scala tympani.

Almost midway between the outer edge of the lamina spiralis and the outer wall of the cochlea are situated the rods of corti, supported on a membrane called the basilar membrane. Viewed sideways, the rods of corti are seen to consist of an external and internal pillar, each rising from an expanded foot or base on the basilar membrane. They slant inwards towards each other, and each ends in a swelling termed the head, the head of the inner pillar overlying that of the outer. Each pair of pillars forms, as it were, a pointed-roof arching over a space, and by a succession of them a little tunnel is formed. It has been estimated that there are about 3,000 of these pairs of pillars in proceeding from the base of the cochlea to its apex. Leaning, as it were, against these external and internal pillars are certain other cells, of which the external ones terminate in small hair-like processes. This complicated structure, or organ of corti, rests on the basilar membrane; it is roofed in by a remarkable fenestrated membrane (lamina reticularis of Kölliker) into the fenestra, on which the tops of the various rods and cells are received. In close relation with the rods of corti and the cells inside and outside them, and probably projecting by free ends into the little "tunnel" containing fluid (roofed in by them), are filaments of the auditory nerve.*

* Kirke's "Physiology."

We have only described the internal ear in its osseous labyrinth, but the whole of this—vestibule, semicircular canals, and cochlea—are lined by a closed membranous sac containing fluid (the endolymph), called the membranous labyrinth. It is separated from the bony walls by another fluid called the perilymph. It is on the walls of this membranous labyrinth that the auditory nerve is distributed, and it is by this means that the membrane is held in place. The vestibular part is divided into two portions, called the utricle and saccule, the latter being the smaller and more globular, the former being the larger, and receiving the fine orifices of the semicircular canals. In this portion are found the little concretions called otoliths, which are also found sometimes in other parts. These otoliths are minute masses of carbonate of lime, held together by a delicate mesh of connective tissue.

The auditory nerve, called also portio mollis, from its softness, passes from the brain through a canal in the temporal bone, named the internal meatus, to the inner ear, whence it passes in two divisions—one for the vestibule and semicircular canal, and the other for the cochlea.

The external, middle, and internal ears are but very elaborate and beautiful mechanical contrivances for conducting, preserving, and even intensifying all vibrations which are capable of being transmitted from the outer air; the essential agent is the auditory nerve which conducts to the brain the final impulses it receives in the internal ear. How it is that such vibrations are translated into the sounds we are conscious of is a mystery; we can only, at present, study and lay bare the physical apparatus which serves as the medium.

It will easily be seen that deafness may arise from a variety of causes—any interference with any of the numerous structures we have mentioned, may so derange the conducting power as to render hearing either defective or entirely deficient. These may, for the purposes of classification, be considered according to the part affected. Thus deafness may arise from defect or disease in the

1. External ear and its appendages.
2. Middle ear and its appendages.
3. Internal ear and its appendages.

But the conducting apparatus may be perfectly sound, and yet there be deafness, for the auditory nerve may be pressed upon by some bony growth, whilst in the osseous canal of the internal meatus, or from fracture of the skull, some sharp fragment of bone may irritate or compress it, and in such cases there may be still further physical interference by the fissure spreading through into the internal ear and so deranging its functions. The nerve itself may be inflamed as the seat of tumour, and lastly, the portion of the brain whose function it is to translate the vibrations into definite sounds may be diseased. We shall not further mention any of these states, because they are all associated with special symptoms apart from deafness. In certain cases deafness is congenital, there being a want of proper development, and this is very generally associated with mutism, the unfortunate being having neither speech nor hearing.

The first group is rather important, owing to the fact that so many suffer from deafness, due to some remediable defect situated in this part. Young children and babies constantly suffer from eczema behind and on the pinna; this does not cause deafness, but is sometimes troublesome to treat. Alternatives are useful, attention to diet and the use of pure starch powder will generally be of service, but if obstinate, and especially if scales form, remove them by poulticing and the use of oil, and to the raw surface left apply some calamine or citron ointment and prohibit the use of soap, substituting oatmeal.

One of the very common causes of deafness is an accumulation of wax or ceramen. A certain secretion of this substance is necessary for perfect hearing: it acts by keeping the passage moist, for when this secretion is defective, and the meatus is seen by the speculum to be unnaturally dry, there will be some deafness. In certain persons this secretion accumulates, especially in the old; becomes dry and hard, giving rise to great deafness, to singing or crackling noises. It is often limited to one ear, and may remain even for years, as in a case of a porter to a hospital, who had been quite deaf with the right ear for two years, and had suffered from distressing noises, the speculum

revealed the passage blocked up with hard brownish-looking wax. After applying oil for two or three days, and plugging with cotton wool, so as to retain it, and so soften the mass, it was well syringed, and a large mass removed, with the result of a perfect restoration of hearing. Sometimes there is great pain and tenderness about the ear, with singing noises, and all may be removed by syringing out the wax. It is always well to drop some sweet oil night and morning, filling the meatus, and closing the orifice with wool; then to syringe with warm water, in which some carbonate of soda has been dissolved, as the latter seems to exert some solvent action on the wax.

It is well not to use too large a syringe, and the nozzle should be small. After filling the syringe gently grasp the pinna and draw it back, which exposes the passage more freely, and tends to make it straighter; then gently introduce the nozzle, resting it very slightly on the roof of the passage, and gently force the fluid in, taking care to leave a sufficient passage below the nozzle for the back stream and any particles it may bring away with it. Force must not be used on any account: and if pain is complained of, the syringing should be suspended. It is well also not to make the operation too prolonged, as the syringing with the warm fluid renders the whole passage very vascular. When all the wax has been removed the fluid reaching the tympanic membrane often gives rise to unpleasant sensations, to a feeling of sickness, or to cough. Any of these should point to the fact that enough has been done for that sitting. Always after the syringing plug the ears with wool for a few hours, so as to protect the vascular surface from chill.

(To be continued.)

FORMULÆ FOR A FEW SYRUPS.

THE following are a few syrup formulæ which may be useful, and are taken from a collection given by Hobe, of Berlin, in a meeting of the Berlin Pharmaceutical Society:—

Syr. Amygd. Dulc.

	Parts
Amygd. dule.	25
Amygd. amar.	5
Aq. flor. anrant. cone.	5
Aque dest. ad	50
Sacch. opt.	100

Make of syrup 150 parts. Bleach the almonds and make an emulsion with about 40 parts of water. Make a syrup with the sugar and the least possible water; add the strained emulsion while hot, and, lastly, add the orange-flower water.

Syr. Balsami Peruviani.

	Parts
Bals. Peruv.	5
Aque dest. ad	35
Sacch. opt.	65

Make of syrup 100 parts. Digest the balsam with twice its weight of water for two hours in a closed vessel. Repeat the digestion with another quantity of water. Strain the mixed fluids and make a syrup with the rest of the water, adding the mixed balsam liquors after filtration.

Syr. Cerasi.

	Parts
Succ. cerasi	35
Sacch. opt.	65

For the cherry juice. Some cherries are crushed with the kernels and kept in a covered vessel at a temperature not exceeding 20° C., with frequent agitation, until a specimen filtered off will mix with half its volume of spirit with turbidity. Then press and filter.

Syrup of buckthorn and of raspberries may be made by similar formulæ.

Syr. Chamomillæ.

	Parts
Flor. chamomill.	10
Spiritus	5
Aq. destill. ad	40
Sacch. opt.	60

Mix the flowers with the spirit, and afterwards add sufficient water to cover the flowers in a closed vessel. Set in a steam-bath for 20 minutes

The liquid is not to be pressed, must be made up to 40 parts and filtered, to make with the sugar 100 parts.

Syrups of fennel, peppermint, spearmint and valerian may be prepared by similar formulae.

Syr. Liquiritiae.

	Parts
Rad. liquiritiae innud.	20
Liq. ammon. caust.	10
Spiritus	20
Aq. destill. ad	50
Sacch. opt.	100
Mell. depur.	100

Make of syrup 250 parts. Macerate the liquorice, ammonia, and 200 parts of water, for one night in a covered vessel, then press and boil the liquid in a steam-bath until it is of the consistence of honey. When cold add 20 parts of spirit and as much water as will make the weight 50 parts. In this dissolve the sugar and afterwards add the honey.

Syr. Rheados.

	Parts
Flor. Rheados rec.	20
Aq. destill. ad	40
Sacch. opt.	60

Soak the flowers in a sufficient quantity of boiling water to cover them. Let it stand till cold; strain to 40 parts, in which dissolve 60 parts of sugar, and again strain.

Substitute for Syr. Croci.

Saffron digested with 50 times its weight of glycerine will yield a colouring solution, which may be kept for a long time without change.

RIPE INDIAN BAEI FRUIT.

By A. W. POSTANS.

IN the *Medical Times and Gazette*,* Sir Joseph Fayrer, K.C.S.I., M.D., &c., draws attention in a most interesting lecture to the ripe fruit of Indian Bael, and its therapeutic value in the treatment of some forms of bowel complaint. It is, he says, in high repute in India, and should be often useful here in similar cases, especially in those forms of chronic diarrhoea and dysentery that are seen in persons who return to Europe after residence in India or other tropical climates.

Bael fruit, as is well known, is the produce of *Ægle Marmelos*, belongs to the n. o. Aurantiaceae, and comes from Malabar and Coromandel.

The British Pharmacopoeia gives the following characteristics:—Fruit, roundish, about the size of a large orange, with a hard, woody rind; usually imported in dried slices, or in fragments, consisting of portions of the rind and adherent dried pulp and seeds. Rind about a line and a half thick, covered with a smooth pale brown or greyish epidermis, and internally as well as the dried pulp, brownish orange or cherry red. The moist pulp is mucilaginous. This is the official kind, the dried half-ripe fruit, and I well remember in the days of Sir Ranald Martin how largely he ordered the fluid extract prepared from dried half-ripe fruit; and, it was very generally in combination with syrup of the red gum of Western Australia.

Respecting the fluid extract of the Pharmacopoeia Sir Joseph Fayrer says: "This liquid extract of bael is prepared by macerating the dried fruit in water and rectified spirit. The fluid is to be evaporated, pressed, and filtered; an intensely brown fluid is the result, of which ʒj. to ʒij. may be given as a dose. This and the dried fruit are the only official forms in which it is known (so far as I am aware) in this country; and though I do not wish to disparage them, for I really know little of their properties in this state, yet I imagine they have neither deserved nor acquired much repute as medicines. I think the ease is different in regard to the fresh fruit and its preparations, and it is to them, therefore, that I wish to call your attention, for it is quite possible now, in these days of rapid communication, to procure constant supplies direct from India; and even though it should not maintain its value here as it does in the East, yet,

as some of you will probably serve in India, it is well that you should be acquainted with a remedy that often proves valuable there."

It should here be stated that a small quantity of the ripe fruit was sent by myself to the editor of the *British Medical Journal*, who reports in that journal a case of diarrhoea, in which the fresh fruit had very much the same effect as the official liquid extract.

Some months ago, at one of the evening meetings of the Pharmaceutical Society, I drew attention to a very beautiful specimen of ripe fruit which had been kindly given to me, and brought over from Calcutta by Dr. James M. Laing, of the Indian Colonial Service; and Dr. Laing fully testifies to the great efficacy and superiority of the ripe over the dried unripe fruit which is the official kind, and I think it most desirable that this subject should be brought prominently to the notice of all engaged in pharmacy.

Glancing therefore at the weight of evidence, it seems strange that the ripe fruit has not already had assigned to it a place in that honoured book, the British Pharmacopoeia, and the only reason one can imagine for its absence is the belief which was at one time prevalent that the ripe fruit would not keep and could not be obtained in this country.

In support, therefore, of the assertion that Bael fruit in its ripe form will keep, I may be allowed to state that I have a specimen by me now which has remained in a perfect state for the last seven or eight months (a portion of it was sent to THE CHEMIST AND DRUGGIST, and greatly praised by the editor a month or two since). It came over in slices resembling in appearance freshly-cut pineapple: it is soft, sweet, palatable, and nice tasting as well as nice looking, and may be eaten without further preparation, as it is constantly taken in that form in tropical climates.

Dr. Fayrer says it is common nearly all over India, and everywhere is held in high esteem, and, indeed, veneration. By the Hindoos it is regarded as a sacred tree, its ternate leaf being considered as a type of the Hindoo Trinity or of Siva, a member of the sacred triad. It is, moreover, thought to be pervaded by the presence of Durga or Kali, the wife of Siva, and hence has a double odour of sanctity, and is much grown around pagodas and temples. It is valued not only on this account, but because its fruit, leaves, bark, and wood, are all considered to be endowed either with medicinal properties, or to be of value in other ways.

Dr. Brandis, F.R.S., Director-General of Forests in India, says of the tree, "The leaves are shed about March and April, the new foliage appears in April and May; flowers about May. The fruit ripens in October and November, and remains long on the tree. It would appear, therefore, that too much publicity cannot just now be given to the fact that there is a demand springing up for the ripe fruit, which will soon now be gathered, and should then be sent to the English market."

The Indian Pharmacopoeia gives the following formula for *Mistura bael*:—Take of the soft tenacious fluid of the interior of the fruit 2 fl. oz.; water, 4 oz. Mix thoroughly and add sugar, 2 oz., or sufficient to render it palatable.

It may be strained through linen, and is so taken by many in India when the bowels are deranged, for its beneficial action in giving tone to the intestinal tract. It is generally taken early in the morning (says Dr. Fayrer), and may be repeated twice or thrice daily to the extent of a large wine-glass or small tumbler full.

Dr. Waring says it possesses all the aroma of the fruit, and when prepared with ripe fruit is not only astringent when diarrhoea exists, but possesses the singular property of being aperient if the bowels be irregular or costive. Bael marmalade, according to Mr. Grant, of the Bengal Medical Service, is prepared in the same way as orange marmalade. It is eaten on bread, and said to keep well.

Extractum bael.—Select such fruits as have thin and even shells, and are perfectly matured. Extract the pulp, place it in a vessel, add water sufficient to cover it; stir for two hours and strain through stout calico. Repeat this process until the fluid which passes through the strainer is tasteless, evaporate over a water-bath to the consistency of a soft extract.

Dr. Macnamara, late Professor of Chemistry in the Calcutta Medical College, has recorded an examination of the fruit, in which he compares the ripe and the unripe

fruit in reference to the proportion of tannin or other astringent principles contained in each, and in which he states that the ripe contains more tannin than the unripe fruit in the proportion of one to three. It contains more sugar, more of the bitter principle, and vegetable acids not tannic. He obtained also by means of ether a balsam having a strong odour closely resembling that of Peruvian balsam. This, he says, exists in much larger quantities in the ripe than in the unripe fruit. The astringent properties are due to tannic acid, and the ripe fruit, containing more of this than the unripe fruit, is more potent.

Dr. Fayer further says he is persuaded that a great deal of mortality in English regiments from the scourge of dysentery would be saved by the free use of ripe bael fruit, as he has found its effects absolutely marvellous, both as regards rapidity of action and effectual cure.

It is greatly to be desired, therefore, that the small quantities which have of late found their way to this country should ere long be supplemented by larger supplies.

THE CALIFORNIAN QUICKSILVER TRADE.

QUICKSILVER, copper, and antimony are the only metals which have not as yet shown many signs of improvement, the first named being especially sluggish and commanding very low prices. California, in her production of quicksilver, now exceeds that of all the world put together. Three years ago it stood thus:—Almaden (Spain), 36,000 flasks; Idria (Hungary), 8,000 flasks; Germany, 2,400 flasks; California, 40,000 flasks; but since then the production has greatly increased, that of 1877 being 69,886 flasks and 69,192 in 1878, being a slight falling-off. But this increase in favour of California over the European mines is not likely to last on account of the reckless irregularity of the working of the California quicksilver mines. The Spanish and Hungarian mines are steady-going concerns, which keep at least ten years' bodies of ore in sight, and have no desire to glut the market, especially when it is a falling one. The Californians, on the other hand, live from hand to mouth, and have seldom more than a year's supply of ore in sight, caring little for the future as long as they can fling present large supplies into the market. The average annual yield of the New Almaden mine for the last four years has been 18,000 flasks; Sulphur Banks, 9,500; and Redington, 8,000; and an extensive and rich-looking mine is just commencing work in Oregon. It is noteworthy that of the 46,280 flasks exported by California in 1877, and 34,280 in 1878, the Chinese took the large proportion of 31,210 and 20,445 flasks respectively, and it would be interesting to know what are the uses to which they can put such a very extensive amount. Japan only took 388 and 690 flasks, so that there must be some very special applications for quicksilver among the Chinese.

SCIENTIFIC WORK FOR PHARMACISTS.

The Inaugural Address, delivered to the Liverpool Chemists' Association, by Charles Symes, Ph.D., October 9, 1879.

AFTER an interval of five years you have again done me the honour of electing me your president. When some few months since I consented to act in this capacity my official duties were fewer than they now are, otherwise I might justly have hesitated in taking this further responsibility. Nevertheless, seeing that those who have most to do, do the most, I am hopeful that with the support which I can fully rely on from the Council, and from the members generally, we shall have a successful session. This society has now an established position, a history extending over nearly one-third of a century, a dignity to maintain, a useful work to perform. It is a proverb of antiquity that "no man lives unto himself," and what is true of the individual is equally so of the body corporate. As individual members of this society we have helped to swell its numbers and

have contributed to its funds; but we have done more: we have entered a brotherhood where the common weal should be our first thought, we have virtually pledged ourselves (one and all) to contribute to the common fund of information, to impart as well as to receive, to cull from our everyday experience, from the work or reflections of our leisure, something, however small, which will help to add interest and profit to our evening meetings. As a society we represent the progress and interests of chemistry and pharmacy in this town and neighbourhood, and have our relations to the other scientific societies which meet in this institution and elsewhere. We are one (and I venture to think not the least important) of the societies established throughout the country for the fostering and development of these sciences, so that it requires but a moment's reflection to see how great is our joint responsibility, how necessary for us to maintain in its integrity the work of the founders and of those who have reared and brought the society to maturity. Passing from the Association itself to the branches of science which it represents, and the relation of these to the numerous other branches, the mind of the most profound thinker is unable to grapple with the whole of the facts, deductions, and theories which rise up before it; some real and substantial, others semi-ideal, some with so much of truth about them that they cannot be lightly dispensed with, others having barely a claim to recognition.

A connecting thought here, a missing link there, this clear exposition, that conflicting evidence, passing from arguments of solidity through the various grades of attenuation to the most ideal theories of the imagination. An interminable network of ramifications, embracing all, from the commonplace things of everyday life to the borders of infinity. But if the gravest philosopher is incapable of grasping the whole of this and of arriving at satisfactory generalisations, can't be expected that we, men of average minds and capabilities, shall be able to deal with them? Presumably not; but you will agree with me that it is well that we should dip sufficiently deeply into these things to enable us to realise the earnestness and reality of life, and to penetrate beyond the mere surface of existence.

This probably will be best accomplished by limiting our sphere of inquiry, and regarding more particularly the chemist and pharmacist, and his environment, not in the broadest possible acceptance of the term, but contemplating more especially his surroundings, the accomplishments of the present and the work of the immediate future. Next to what Carlyle calls the "vestural tissue," around the chemist are his chemicals, balances, burettes, beakers, to an almost endless list: his laboratory. Around the pharmacist his measures, mortars, medicines, an ever increasing multitude: his pharmacy. These are the surroundings within which he, as a rule, gains experience and acquires the means by which he is sustained and enabled to impart energy to the mind, that mind by which he is or should be judged as regards his social position and capabilities for usefulness to mankind.

It is not, however, the mere possession, but the practical application of knowledge which determines the environment outside that already mentioned, and chemistry provides abundant scope for this, seeing that it is at the very foundation of our knowledge of things.

Professor Allman in his recent presidential address to the British Association pointed to the conclusions of Max Schultze, which are now generally accepted as being correct, viz., "that the same protoplasm lies at the base of all the phenomena of life whether in the animal or vegetable kingdom"; and, further, that although in all probability *chemically* the same, it differs in some unknown physical property. Here, then, chemistry is called on to decide a most important question—a fundamental principle in biology—and this single illustration will suffice to show the importance of and necessity for exactness in the results of its operations. Great as this exactness already is, workers in this field are constantly aiming at new or improved methods for the acquirement of greater accuracy, and while this work is steadily progressive, the facts or subject matter of chemistry remains constant and immutable to all time. Not so the theories by which these facts are explained; within comparatively few years these have undergone a complete revolution, and the student who 20 years ago took special pains to ground his knowledge thoroughly in the principles

on which chemical phenomena were generalised, has, if desirous of keeping pace with the times, been compelled to unlearn and consider erroneous much of what he then regarded as incontrovertible fact, and to begin *de novo* to acquire the modern system.

The work of the professional chemist is not materially affected by these theoretical considerations, but inasmuch as he seldom enters this profession simply on account of the amount of remuneration it yields, but rather because his taste lies in this direction; because he takes pleasure in his occupation, and delights in unravelling these mysteries surrounding the primary and complex conditions of matter, he will be induced at every step to go beyond the mere requirements of his work. Chemical occupation has considerably increased in modern times. Within a comparatively short period a small army of public analysts has been created, which, with its vassals, is pledged to guard the public against the baneful influences of adulteration, a very desirable object, and one in which undoubted good has already been accomplished. That some unqualified, over-officious, and even unprincipled men should have entered the ranks is not at all surprising, seeing that the demand sprang suddenly into existence, without the years of necessary preparation for supplying it efficiently, but the position is becoming elevated, and the evil which has existed in some localities (happily not in ours), viz., where the public analyst has been a terror equally to the unjust and the just, will doubtless soon cease—a consummation greatly to be desired, and by none more so than by the conscientious and efficient members of the body. In addition to the various chemical works throughout the country there are many manufactures, the conduct of which involves some chemical knowledge, and in some instances this is sufficient to justify the employment of one or more chemists on the premises. This is a growing occupation for chemists and one which must necessarily increase in direct proportion to the enlightenment of the age. I have in my mind, at the present moment, one or two large manufacturing firms who to my personal knowledge, by using their laboratories as guides in their operations, are enabled even in these trying times to compete successfully with what would otherwise be overwhelming competition. Belonging to this department of technical chemistry are certain manufactures in which huge chemical processes are involved.

Those of us who attended the recent meeting of the British Pharmaceutical Conference at Sheffield had an opportunity of witnessing one of these in the Bessemer process of manufacturing steel, the grandeur of which produced an effect on the minds of many which will not readily be effaced. The Hollway process of rapid oxidation and the use of sulphides as fuel is of so recent a date as to be scarcely perfected, at least as regards working details, but it is a grand conception, the ultimate effects of which cannot at present be estimated. Ores so poor as not to be worth working on account of the cost of the fuel which would be consumed are by this process made to produce their own fuel, and can be worked at a profit. These are two instances of applied chemistry, but many others might be quoted if time permitted.

Beyond this we have the more attenuated environment of chemical physics in which we gradually pass from experimental demonstration to deductions, theories, and hypotheses; here rapid strides have been made during the last few years, and still there is room for work. Quite recently we were startled by the announcement that oxygen, hydrogen, and nitrogen had been liquefied; but the other day it was more than hinted that chlorine had been dissociated, and now Mr. Crookes opens up a new field of inquiry into the chemistry of "radiant matter." So far he finds that even in this attenuated condition the molecules retain their chemical characteristics: if, however, the character of the molecules can be modified by physical influences, or if it is possible for the atom to exist in a free and uncombined state, it seems probable that the most favourable condition for such existence will be found in this direction.

Having thus gone over in outline some of the surroundings of the chemist as a professional and scientific man, let us contemplate shortly, but more especially, the environment of the pharmacist. I have already mentioned the close proximity of the pharmacy, its medicinal contents and the instruments and utensils by which the latter is dispensed;

but seeing that drugs, &c., have to undergo selection and certain processes of manufacture before they are fitted for use in the pharmacy, some amount of skill is required to enable the operator to accomplish these things satisfactorily. But comparatively few years since only one school of pharmacy (to the best of my knowledge) existed in this country: now there are probably a score or more. Books and other facilities for education have been multiplied, all of which are, or should be, healthy signs; and I think it cannot be denied that the pharmacist of to-day is a decidedly more accomplished man in his calling than he was even 20 years ago, but whether pharmaceutical education has kept pace with the provisions made for it is somewhat doubtful; if young men trust too much to the "short cuts" so temptingly provided and neglect systematic training and home study, the knowledge gained will be exceedingly evanescent and will be of little real use to them; it might perhaps suffice to enable them to pass an examination or two, but it should be borne in mind that examinations are not the aim and end of our existence: they are but the portals through which it is necessary to pass in order to enter into the real business of life, first as assistant and then as principal, during which transition views of things often undergo considerable modification. The chemistry of the pharmaceutical laboratory is not so exhaustive as that previously referred to, many of its operations are mechanical and can be performed in detail by less skilled labour, but that both knowledge and judgment of no mean order are involved in the direction of these no one with personal experience in the matter will doubt. But chemistry does not stand alone, some knowledge of botany, a sound knowledge of materia medica and of the various operations and requirements embraced by the broad and comprehensive term of pharmacy are absolutely necessary, and if these are faithfully acquired it is not at all surprising that those who conduct a business involving proficiency in such sciences should lay claim to a professional status. Many, however, find it impossible or inexpedient to conduct their business on a purely professional basis: hence we have the existing state of things well known amongst us, viz., pharmacy as a combination of profession and trade. The social position of the pharmacist has been so recently and so ably dealt with by the President of the Conference that very little from me on this point will suffice.

There can be no doubt but the public regard pharmacy as something above an ordinary trade, and the pharmacist as a man of superior intelligence, but he is a shopkeeper, and with the superficial portion of society this militates considerably against him; yet if my experience is worth anything it indicates that those who have the most substantial claims to position themselves most readily accord to us our proper status; still an anomaly does exist, and this social environment of the pharmacist is a problem not easily solved.

It has occurred to me in this relation, as it probably has to others, that there is something in a name, and if we, after continental fashion, were to educate ourselves, and the public to speak of our places of business as *pharmacies*, and to regard our charges for dispensing—however small or large—in the light of fees or payment for professional work, *which they really are*; and added to this, if we put forth a general effort to improve the tone of our business, we shall have done, not all, but something towards the accomplishment of our aim, which must necessarily be a work of time. Progress will of course be less rapid in times of general depression than it would in those of prosperity, and far as I am from believing in the perpetuity of "bad times," if only half one hears is true, it would be useless denying their existence at present. But as a picture cannot consist entirely of background and shadows, but must have its high lights and half tones, so the evil cannot exist without some attendant good; the refining process rarely fails to produce better metal, and I believe these trying times have their salutary influences, inasmuch as they are calculated to stimulate our capabilities, to test the strength of our mental resources, and to develop our best energies. Our latent powers are doubtless greater than we should ever be aware of but for the necessity which calls them into action, and if we add to these fortitude and patience there can be no doubt but the end will be worthy the means. The present time is one in which we should most thoroughly appreciate an

association like this, which brings us together for friendly intercourse, for mutual help by the exchange of ideas, tending to render more perfect the sciences we profess, and to make us better capable in our respective spheres, of serving our day and generation, so that when called on to give place to others, we may leave chemistry and pharmacy something better than we found them. There is much uncultivated ground to work; much that remains to be done. Truly, at first sight, it appears as though every atom of the universe, every molecule of which it is built up had been twisted and turned by scientists in every conceivable or possible direction; but going somewhat more deeply into our subject we find that so vast is the prospect which opens up before us that we are overcome by the contemplation of how little it is possible for one individual in a lifetime to accomplish. The amount of partially developed ideas and unfinished work by which we are surrounded is very considerable; versatility of talent and the wide range of operations seem to tempt workers to pass on to new subjects and new inquiries, and to leave the old ones with still much to be done for their completion.

There are still many vacant places in the tables of homologous substances. Synthesis of the alkaloids is merely commenced, inasmuch as with only two or three has it been accomplished. Not until within a few weeks since were we furnished with reliable information on the chemistry of so common a substance as ginger.

Perusal of the blue list published by the British Pharmaceutical Conference and of the list of queries given by the American Pharmaceutical Association at once suggests the incompleteness of our knowledge in many chemical subjects and pharmaceutical processes, and reminds us that there is more work than there are workers.

Gentlemen, let us as members of this Association resolve that during the present session we will do something towards working out the numerous problems which lie around us for solution, and so contribute something to the common stock of chemical and pharmaceutical knowledge.

One word to the students now entering on a new session, and I have done. Let your work be *thorough*. You have examinations to pass, and must of necessity work in a direction to acquire the requisite education, but if you work solely for this, with no higher or broader aim, then, however successful you may be in passing, you utterly fail to accomplish the object for which examinations exist. It is not by spasmodic efforts, but by persistent study, "*Nulla dies sine linea*," that you can gather in a rich harvest of knowledge and thereby gain the approval of your own consciences and be enabled more thoroughly to serve the interests of your fellow-men.

ADDRESSES TO STUDENTS AT THE MEDICAL SCHOOLS.

BY far the most striking of the Introductory Addresses at the Medical Schools was that by Professor St. George Mivart, F.R.S., at St. Mary's. Professor Mivart is not only eminent as an anatomist, but has also a special reputation in metaphysical studies, and this was how he ingeniously wove an attack on the popular materialistic philosophy of the day into an address to medical students. He told his hearers that one of the conditions of success in their profession, as in most others, was the ability to form a sound judgment. A fair degree of bodily health, a sound judgment, and an energetic will, he says, are the three requisites for success. There are two dangers of opposite natures in forming judgments. One is to conclude on insufficient data, and the other and more insidious is the danger of not concluding when the data are sufficient, the danger of acquiring such a habit of indecision as to run the risk of being still occupied in balancing probabilities when the time for action has arrived or has even passed. Such a habit, he seems to consider, is directly encouraged by the popular philosophical system known as the agnostic or "know-nothing" system. This is the system taught by such men as Spencer, Mill, Tyndall, Huxley, Bain, Clifford, &c. These men teach the doctrine of what they call "the relativity of knowledge."

They affirm, that is, that all one's knowledge has only a relative value, and is none of it absolutely true. Professor Mivart met them at once with the inquiry—Is this doctrine of yours itself only relatively true, or is it absolutely true? If the latter, then your doctrine must be false, for here is one thing which upsets it. If, on the contrary, you cannot assert it to be absolutely true, then it is partially false, and some of our knowledge is true. In any case, he says, these philosophers are like a man sitting in a tree and sawing off the branch on which he sits.

Professor Mivart, on the contrary, declares that we can apprehend truth:—"We know things, and we know that we know them. *How* we know them is a mystery indeed, but one about which it is perfectly idle to speculate. It is precisely parallel to the mystery of sensation. We feel things savory, or odorous, or brilliant, or melodious, as the case may be; and with the aid of the scalpel and the microscope we may investigate the material conditions of such sensations. But *how* such conditions can give rise to the feelings themselves is a mystery which defies our utmost efforts to penetrate. Yet, because we cannot discover this, we never doubt our sensations. Neither should we doubt our judgments as to necessary truth. For, in fact, it is these latter which are ultimate and supreme, as a little consideration will show."

Herbert Spencer has affirmed that we cannot know our own real persisting mind, because, forsooth, "every state of mind is some modification of the substance of mind," and because in no state of mind can the substance of mind be present unmodified. Therefore, he tells us, "we know nothing, and never can know anything, about this persisting mind of ours."

The same philosophers, says Professor Mivart, who tell us we can know nothing but states of mind, yet represent these states as the accompaniments of a *material object*, the brain; and while acknowledging that such an object is for us but a "state of mind," they yet do not scruple to speak of "purely physical changes and conditions," just as if they meant what we mean by those terms. And, in fact, they do mean what we mean, so that this representation of theirs is a piece of "*intellectual thimblerrigging*," by which the unsuspecting onlooker is liable to be cheated out of his most valuable mental possession—his rational certainty.

Thus they declare some things to be doubtful for reasons which, if they be valid, would prove the truth of the things doubted; for they declare our mental being to be doubtful on account of physical considerations which depend on that very mental being for their validity. They also declare things to be true for reasons which, if they were valid, would prove the things declared to be true to be in reality false, for they declare physical existences to be true while all their reasoning rests on the alleged ground that we can know nothing, and have therefore no ground for believing in the existence of anything save states of consciousness.

But if they really do believe in "material objects" and "physical states" as *realities*, and are at the same time sincere in affirming that we can know nothing but states of mind—states of consciousness—then they can only get at their "material objects" and "physical states" by an act of blind and unreasoning credulity, superstition thus taking the place of insulted reason. This noble faculty vouches for the existence of both mind and matter, though it cannot explain *how* the knowledge we have of either is come by. People not content to accept this double knowledge naturally given may indeed by extraordinary mental gymnastics succeed in spinning out fantastic idealist systems or gross materialist ones. Neither of these, however, concords with the phenomena of consciousness. Both break down when we test them by internal observation and mental experiment. But most unreasonable of all are those sophists who, upon an idealistic basis, would erect a materialistic system, thus realising a double absurdity.

At the Charing Cross School Mr. Hird, the Dean, spoke on education generally as the basis of human happiness, as the mark which distinguishes men from brutes, and as the refutation of the doctrine of evolution as applied to man. He then discoursed on the various special subjects of a medical student's education.

Dr. Duffin, at King's College, spoke of the importance of medicine, and defended vivisection. Remarking on the views entertained respecting medical practice by outsiders,

he said, from the standpoint of the uneducated man, our position is very simple. He regards us as endowed with powers over his illness which are almost absolute; we are the depositories of great secrets, which we can, if we choose, exercise for his advantage. To him we are the priests of a great mystery, and are to be propitiated; the more so as he has some uncomfortable notion that we may be evilly disposed, and utilise him as the subject of what he calls experiment. How or whence our knowledge is obtained are also questions about which many think vaguely, if at all. Many seem to imagine that medical discoveries are showered down in an intermittent and irregular sort of way upon the world at large. Most of them possibly fall on the members of the medical profession, but they may equally tumble on blacksmiths or old women. Their idea is that a man may tumble on a medical discovery much as he may pick up an apple on a roadside. They entirely overlook the complexity and wonderful working of the animal economy, because they know so little about it. Were these same people told that an old woman had suddenly discovered a panacea for all defective steam-boilers, they would laugh the idea to scorn: "We know too much about boilers for that." But, if this same old woman pretend to have discovered a pill which shall cure every human ailment, she is at once regarded as having had a revelation from heaven. What is the actual history of the majority of these cure-alls? An individual with a little capital which he desires to utilise, or a "company limited" with a "cute" secretary, gets hold of a pharmacopœia—British or foreign matters little. They extract therefrom some well-known aperients or sedative substances; these they herald to the world with a blast of trumpets and the prefix of some surname, Brown, Jones, or Robinson; or, better still, they dub their speculation with some title of barbarous etymology, supposed to convey to the public mind some idea of its virtues, such as vetosine or nauscaine. They extract some testimonials from a lot of credulous ignoramuses utterly incompetent to judge of the question; these, when worked up skilfully, are served hot in the daily press. An intelligent and a thrifty Government casts the ægis of secrecy over this wonderful discovery, on condition that a patent be taken out and a three-halfpenny stamp be fixed on the bottle. A good-natured public, seeing the stuff advertised right and left, thinks there must be what is called "something in it," and invests accordingly. If the something be a mild aperient, it probably, in the long run, does no great harm; if it be a drastic, or still more, if it be a narcotic, it helps to swell the bills of mortality.

Dr. Sydney Coupland, at Middlesex Hospital, surveyed the whole life of the medical student, and gave much valuable advice. He urged a steady persistence in work, discouraged the use of the midnight oil, and pressed his hearers to remember that the few brief years of studentship are but the entrance to a lifetime of labour.

At St. Thomas's, Dr. Cory devoted most of his lecture to a defence of vivisection, and Mr. Thane, at University College, gave an historical sketch of the school in which he lectured. At St. George's, Mr. Dalby discussed the influence of study in developing the mental powers; and at Westminster, Dr. Dupré commented on education in England and Germany, strongly recommending an early classical education as preparatory to the technical training which a medical student has to receive.

FIREPROOF COMPOUNDS.

THE following mixtures are recommended by Messrs. Martin & Tessier, of Paris, and are said to be inexpensive and remarkably efficient. The first may be applied to linen, muslin, and other fabrics. It consists of:—

	Kilos.
Sulphate of ammonia (pure)	8
Carbonate of ammonia	2.5
Boracic acid	3
Borax (pure)	1.7
Starch	2
Water	100

Steep the fabrics in a hot solution composed as above until they have become thoroughly impregnated, after

which drain and dry, and afterwards iron or press like ordinary starched goods.

For theatrical scenery, canvas, woodwork, furniture, door and window frames, &c., to be applied hot with a brush like ordinary paint:—

	Kilos.
Boracic acid	5
Hydrochlorate of ammonia or sal ammoniac	15
Potassic felspar	5
Gelatine	1.5
Size	50
Water	100

To which is added a sufficient quantity of a suitable calcareous substance to give the composition sufficient body or consistency.

For coarse canvas or sail cloth, eordage, straw, and wood, to be applied by immersing the articles therein or by imbibition:—

	Kilos.
Boracic acid	6
Hydrochlorate of ammonia or sal ammoniac	15
Borax (pure)	3
Water	100

For papers, whether printed or not, bills of exchange, deeds, books, &c.:—

	Kilos.
Sulphate of ammonia (pure)	8
Boracic acid	3
Borax	1.7
Water	100

The solution is to be placed in a vat heated to 50° C. (122° F.) at the end of the paper-making machine, and the paper as it leaves the machine is passed through the solution in this vat, so as to be completely impregnated therewith, after which it is dried upon a warm cylinder and then wound on a reel. If the paper be in sheets or printed, it is simply immersed in the above solution, heated to 50° C., spread out to dry, and afterwards pressed to restore the glaze destroyed by the moisture.

AMERICAN IMPORT TRADE IN DRUGS AND CHEMICALS.

THE following was the value of the chemicals, drugs, dye stuffs, and medicines imported into the United States in the year ending June, 1878:—

	\$
Soda, and salts of	5,543,908
Opium, and extract of	1,874,815
Indigo	1,537,680
Medicinal barks	1,417,695
Argol	1,298,568
Gums	1,297,855
Sulphur or brimstone, crude and refined	1,188,030
Cutch and gambier	978,539
Cochineal	698,055
Chloride of lime	598,813
Other chemicals, drugs, &c.	8,304,401
	<u>24,738,409</u>

Or nearly 5,000,000*l.* sterling.

The United Kingdom furnishes these to the amount of \$10,612,678, and British India, \$2,620,272; France, \$2,230,399; Italy, the Colombian States, and Germany contribute about \$1,500,000 each; and after these follow China, \$711,691; Peru and Holland, each nearly as much; Chili, Brazil, Mexico, and Turkey, about \$250,000 each.

AN INTERESTING CASE.—Three medical celebrities met together to consult at the sick bed of General X. After they go, the General rings for his man-servant: "Well, Jacques, you showed those gentlemen out; what did they say?" "Ah, General, they seemed to differ with each other; the big fat one said that they must have a little patience, and at the autopsy—whatever that may be—they would find out what the matter was."

A SPECIAL TRADE EXHIBITION.

DURING the week, commencing on September 29, a somewhat novel and interesting trade exhibition was held at the Agricultural Hall, the object being to provide a special display and market for the trades associated with the public-house. We notice it not so much out of affection for the licensed victualling interest, but to direct attention to the advantage which exhibitions limited to a particular class of industry may be expected to have over those which take a more extensive range. The visitor to Paris last year with only a few days to spend in the Exhibition was likely to give up in despair any attempt to make a systematic examination of the contents. Its very variety and vastness caused an effect of monotony. Special exhibitions are likely to be visited by the special class of people to whom they will be interesting and, if properly limited, will avoid the risk of being too extensive.

The largest experiment in the way of special exhibitions was made a few years ago by Her Majesty's Commissioners in the South Kensington Exhibition Building. An elaborate scheme for some twenty different annual collections was drawn up, and the whole affair broke down before the programme was half finished. The cause of this fiasco was obviously due to the apparent anxiety of the commissioners to make the exhibitions too educational. The strings were pulled by the scientific lecturers and others, who hoped to get permanent posts, the publicity of which should be of good sound commercial value. But the public did not take kindly to the Kensington "cram," and the latter half of the series was abandoned.

There is a clever genius in Paris who makes a very good income by getting up exhibitions in the Palais de l'Industrie of that city. One is going at this moment professing to represent recent art and industry. It is evident how elastic are the limits of such a specialty. A few years ago the same gentleman (we believe) got up a Navigation Exhibition in the same palace, and when people asked what connection had perfumery, glass, and china, silks and cottons with the navigation business, they were politely told that these articles were often exported in ships. An exhibition of hygiene and sauvetage was held in Brussels three years ago. The most ingenious puzzler could not suggest a product which could not be construed somehow as coming within that classification.

The Licensed Victuallers' Exhibition at the Agricultural Hall last month was fairly confined to the trades serving mine host. Whether the speculation was a success for the promoters and exhibitors we do not know, but it must be acknowledged that failure was not risked to any great extent by too much attempt at education. From this remark, however, it is necessary to except the catalogue which, says its modest editor, "shall, year by year, be an unprecedented epitome of the most valuable thought that may be flying about during each period of twelve months." The amount of gas got into that small paragraph would have done credit to the best aerated-water machine in the Hall.

The great hall was pretty well filled with public-house accessories, such as billiard tables, bar fittings, brewers' apparatus, aerated water machinery, pipes and tobacco. One section was set apart for tasting stalls, an extra *6d.* giving the right of entry. Thirsty souls could hardly lay out *6d.* in a more thrifty manner.

Among the exhibitors of aerated water machinery Messrs. Barnett, Son & Foster were of course prominent. They had seven complete machines on view at prices ranging from 30*l.* to 160*l.* They also showed Codd's bottles and other accessories of the soda-water factory. Messrs. Hayward, Tyler & Co. showed a tropical soda-water machine ready to make 1,000 dozen per day, and alongside a Bramah machine of their manufacture which had been used by Mr. McCarthy, of Romford, since 1838. Messrs. Geraut & Co. showed among specimens of syphons, gazogenes, and soda-water machinery, an ingeniously-arranged bottling and corking and self-acting syrup-dosing machine combined. Mr. N. G. Wilcocks, of Bath, had one of his 40-guinea machines on show, a well-constructed piece of machinery. Messrs. Dows, Clark & Co. exhibited soda-water machinery on the American principle, together with numerous attractive inventions and appliances which made their stand a very popular one.

Messrs. Davenport & Co. also exhibited various machines and nozzles and stoppers for converting ordinary aerated water-bottles into patent stoppered bottles. Mondolot's system of machinery with syphons and gazogenes shown by their agents, of 13 Little James Street, Bedford Row, represented one of the best of the continental manufacturers. Syphons and gazogenes were also shown by the British Syphon Manufactory, Messrs. Eugster & Koertgen.

In the tasting department temperance beverages made a gallant fight with the old demon, bearding the lion in his den, but we are bound to report that the alcoholic samples were most sought after. Sparkling koumiss of various characters was in some favour. Amid a collection of every known variety of isinglass, Mr. J. W. Hart showed in comparison in jelly some East Indian and Russian, the former only about half the price of the latter, and the experiment would at least justify its repetition. Messrs. W. & J. Burrow had a large show of wine and aerated-water bins, as well as all kinds of appliances and ornaments for the innkeeper and wine merchant. Glucose, saccharums, and hop substitutes also figured very prominently, and were no doubt quite familiar to the initiated, but may have suggested some inquisitive thoughts in the minds of not a few idle loungers.

CRICKET MATCH.

S. MAW, SON & THOMPSON V. BAISS BROTHERS.

ON Saturday, Sept. 27, representatives of the two noted houses named above met at Upton to contest the cricket championship of the trade. Drugs proved too powerful for Sundries, both in batting and bowling, but it is to be hoped that next season the defeated firm and others with latent cricket talent will challenge the flag of victory, which, for the present at least, may justly be planted in Old Jewry. The score is subjoined:—

Messrs. Baiss Brothers.		Messrs. S. Maw, Son & Thompson.	
Mr. W. Standing, b Griscoombe	34	Mr. R. W. Carter, c & b Welch	3
Mr. J. H. Peckover, b Griscoombe	1	Mr. C. Jones, b Peckover	1
Mr. N. Womersley, b Griscoombe	1	Mr. Griffiths, b Peckover	1
Mr. S. C. Welch, c Leng, b Griscoombe	1	Mr. Taffs, b Welch	1
Mr. S. S. Baiss, l b w, b Griscoombe	8	Mr. Leng, l b w, b Peckover	3
Mr. A. Baiss, b Carter	0	Mr. Matthews, b Peckover	1
Mr. C. Hatherley, b Carter	10	Mr. Hatherley, b Welch	2
Mr. D. Womersley, b Griscoombe	6	Mr. Burningham, b Welch	0
Mr. H. Standing, not out	10	Mr. Barnes, b Peckover	2
Mr. Hunt, c Leng, b Carter	0	Mr. Griscoombe, not out	7
Mr. H. Cousens, c Jones, b Carter	0	Mr. Fuller, c Peckover, b Welch	2
Extras	4	Extras	14
	74		38

In the second innings, which was commenced by Baiss Brothers, Mr. Sydney Baiss again put his leg between one of Mr. Carter's balls and his wicket, after scoring 5, while Mr. Arnold Baiss failed to score, and was, as in the first innings, c Leng, b Carter. Messrs. N. and D. Womersley played up to time, the former figuring for 13, the latter for 22. Thus, with three extras, 49 runs were added for the loss of two wickets.

After the match the players and their friends sat down to an excellent repast at the Spotted Dog, adjoining the cricket-ground. Mr. John Banks was voted to the chair, and Mr. C. Welch occupied the vice-chair. During the evening the two firms were cordially toasted. Mr. Clark responded for Messrs. Baiss Brothers, and Mr. Fordham for Messrs. S. Maw, Son & Thompson, those gentlemen being the oldest employes present.

REMOVAL OF THE SMELL OF MUSK.—The journal of the Austrian Apothecaries' Association says that the smell of musk, which is so abiding, and to some so disagreeable, may be removed from the hands or utensils by applying a paste formed of pulverised ergot. This property of spurred-rye was accidentally discovered by Blitz when preparing a compound of the above ingredients.

FORMULÆ OF SECRET MEDICINES.

The Formulæ given below are translated (by special permission of the author) from a German collection compiled by Mr. Edward Hahn, Apotheker. The names following most of the Formulæ are those of the authorities quoted for the analysis. The weights are almost invariably given in metric denominations. A gramme is equivalent to 15½ grains. The prices quoted are the nearest English equivalents to the original retail price.

MAGENESSENZ VON CUJAVA — CUJAVA'S STOMACHIC ESSENCE—AQUA VITÆ STOMACHICA CUJAVICA.—Orange berries, 8 parts; thin orange peel, 3 parts; gentian, zedoary, galangal, cinnamon, of each, 2 parts; cloves, 1½ part; carduus benedictus, melissa, lesser centaury, and cardamoms, of each, ½ part; star-anise, 1 part; fennel fruit, ½ part—chopped, bruised, and digested for several days in rectified spirits, 200 parts; distilled water, 60 parts. Express and mix the fluids with syrupus sacchari candidi, 80 parts; and distilled water, 240 parts.—Hoyer.

MAGENESSENZ—STOMACHIC ESSENCE (E. Pearce, London).—Tinctura amara mixed with one-fourth of a part of tincture of oranges and a few drops of oil of orange-peel.—Hager.

MAGENKRAMPF—CURE FOR CRAMP IN THE STOMACH (Fr. Doek, Barnstorf, Hanover).—For indigestion, &c. Water flavoured with eummin-oil. Water, 2 kilogrammes; oil, 48 drops. 2,000 grammes, 18s. to 21s.—Opyrda.

MAGENLIQUEUR—STOMACHIC LIQUEUR (Krombholz).—Tincture of orange berries, 2,000 parts; tincture of calamus, 1,000 parts; tincture of cinnamon, 1,000 parts; spirit of wine, 4,000 parts; spirituous aromatic water, 4,000 parts; sugar, 1,000 parts; carminative oil, 4 parts; cochineal, 4 parts; potassium carbonate, 1 part; water, 14,000 parts.—Wittstein.

MAGENPULVER (R. Tüft.).—For glandular diseases and their results, &c. Sal-ammoniac, 5 parts; alum, 1 part; iron oxide, iron sulphate, calcined sponge, and bone-black, of each, 3 parts; elecampane and roasted rhubarb, of each, 5 parts; dulcamara, 10 parts; senna, 15 parts; masterwort and cinnamon, of each, 5 parts; galangal, 30 parts. 25 grammes, 1s. 6d.—Hager.

MAGEN- UND GALLENPILLEN — STOMACH AND GALL PILLS.—They contain aloes, jalap, gamboge, scammony, calomel, and colocynth.—Hager.

SACH'S MAGEN- UND LEBENSESSENZ—SACH'S STOMACH AND LIFE ESSENCE (sold by Kämpfert, Magdeburg).—Contains 10 per cent. of aloes.

BRUMBY'S MAGENWASSER.—A pleasant, strong liqueur, of a peculiar make, invented by Dr. Krebs. An ordinary clear brown, sweet liqueur, containing an extract of calamus, ginger, rather more anise, and traces of other common spices.—Hager.

MOXON'S MAGNESIAN APERIENT—EFFERVESCENT MAGNESIA (England).—A gentle laxative and cooling medicine. Anhydrous magnesium sulphate, 31 parts; magnesium carbonate, 14 parts; sodium bicarbonate, 30 parts; tartaric acid, 25 parts.—Siller.

GICHTWASSER—GOUT WATER (Metzger, Bingen).—There are two kinds. One consisted of spiritus serpylli, 120 grammes; acetic acid, 4 grammes; the other contained spirit of wine, 118 grammes; pyroligneous acid, 7 grammes; 5s., H. Koch in *Pharm. Centralh.*, 1879, No. 29.

KRÄUTERMEHL—HERBAL MEAL—(Herrn A. Krahmer). A remedy for the longing for drink. A greyish yellow powder of bitter and at the same time somewhat sweetish taste. It is a mixture of powdered gentian and liquorice, with 3 or 4 per cent. of iron filings. Professor Hamberg, Stockholm. ("Sveneka Läkare Sällskapets Handlingar," 1878, p. 288.)

Chemistry.

GRAPE SUGAR.

A NEW grape-sugar manufactory at Peorai, Illinois, rapidly approaches completion. The establishment will have a capacity for the conversion of 6,000 bushels of corn into sugar and syrup daily, and, when completed and in operation, will give employment to 250 men. To accommodate this increase in the population, and give them a home near their work, a small village is being built in the vicinity. It will contain about 30 small dwelling-houses, and a commodious boarding-house.

TESTING MILK.

Good plaster of Paris, made into a stiff paste, with milk, sp. gr. 1.030 at 15° C., "sets" in about 10 hours. When the milk contains 25 per cent. of water, the plaster sets in two hours; with 50 per cent., in about an hour and a half; and with 75 per cent., in about 40 minutes. Milk skimmed after standing 24 hours sets, under the above conditions, in about four hours; when adulterated with 50 per cent. of water, in about an hour; and with 75 per cent., in about 30 minutes. This process is given in the *Archiv. der Pharmacie* for September (3rd ser., vol. 15, p. 211). E. Reichart, the editor, in a "postscript," says:—"I can only confirm this very neat observation of Herr Ohms; it will still remain to fix, by numerous experiments, the limits of its accuracy; this can be easily done by employing numerous different admixtures of milk and water."

NEW ELEMENTS.

"SCEPTICAL CHYMIST" gives in the *Chemical News* the following chronological list of elements whose discovery has been announced during the last two years. He is of opinion that many of them will soon join the long roll of defunct elements.

List of New Elements and their Discoverers.

1877	..	June	..	Davyum	..	Sergius Kern
"	..	June	..	Neptunium	..	Hermann
"	..	June	..	Lavesium	..	Prat
"	..	May	..	Mosandrium	..	J. L. Smith
1878	..	Sept.	..	"New Earths"	..	Gerland
"	..	Oct.	..	Philippium	..	Delafontaine
"	..	Nov.	..	Ytterbium	..	Marignac
"	..	Nov.	..	Decipium	..	Delafontaine
1879	..	March	..	Scandium	..	Nilson
"	..	July	..	Norwegium	..	Dahl
"	..	Aug.	..	Uralium	..	Guyard

FUSIBLE METALS.

OF mixtures of metals which become liquid at temperatures at or below the boiling-point of water there are several known, some of which are placed in convenient order, as follows:—(1) D'Arcet's—Bismuth, 8; lead, 5; tin, 3 parts. This melts below 212° Fahr. (2) Walker's—Bismuth, 8; tin, 4; lead, 5 parts; antimony, 1 part. The metals should be repeatedly melted and poured into drops, until they can be well mixed previous to fusing them together. (3) Onion's—Lead, 3; tin, 2; bismuth, 5 parts. Melts at 197° Fahr. (4) If to the latter, after removing it from the fire, one part of warm quicksilver be added, it will remain liquid at 170° Fahr., and become a firm solid only at 140° Fahr. (5) Another—Bismuth, 2; lead, 5; tin, 3 parts. Melts in boiling water. Nos. 1, 2, 3, and 5 are used to make toy spoons to surprise children by their melting in hot liquors. A little mercury (as in 4) may be added to lower their melting points. Nos. 1 and 2 are specially adapted for making electrotypes moulds. French cliché moulds are made with the alloy No. 2. These alloys are also used to form pencils for writing, also as metal baths in the laboratory, or for soft-soldering joints.

THE President of the Institute of Chemistry offers two prizes of 50l. each for the best two original investigations involving gas analysis.

Materia Medica.

CROCODILE OIL.

MR. PURCELL, of Agra, states that if it were found of any commercial value he could obtain a large quantity of crocodile oil. Dr. Kanny Loll Dey Bahadoor, Calcutta, states that, on examination, crocodile oil contains a larger proportion of solid fat than either the neat's foot or cod-liver and other fish oils. It solidifies at the melting point of ice, while neat's-foot oil only slightly thickens, and the others scarcely thicken. He also tried the softening quality of the various animal oils on leather, and, on comparison, found the leather treated with crocodile oil remained much stiffer than that treated with other animal oils. Still, it may be worth testing by some manufacturers, if, in conjunction with the skins, the slaughter of these reptiles could be utilised.—*Journal of the Society of Arts.*

MINES OF PALM OIL.

THE *Colonies and India* says:—"That portion of the West Coast of Africa which lies south of the river Volta furnishes us with our principal supplies of palm oil. Nearly 1,000,000 cwt. of this oil are annually imported into Great Britain, of the value of over 1,500,000*l.* sterling, its principal use being in the manufacture of soaps, perfumery, candles, and similar articles. . . . So thickly do the trees grow, and so regular and rapid are the supplies of fruit, that in some localities where the regular collection of the produce is not practised the ground becomes covered with a thick deposit of the oily, fatty matter produced by the ripe berries. Deposits of palm "oil," which may almost be called "mines" of vegetable fat, exist in some parts of the Gold Coast which, if not in themselves worth working, at least practically illustrate the natural wealth of the country in such productions and indicate its undeveloped resources."

CINCHONA IN CALIFORNIA.

NOW that the introduction of the cinchona-tree into a variety of regions is established as a possibility, California seems likely to offer another locality for its culture. It is said that there are numerous places among the mountains in the coast range of that section of country exposed to heavy fogs for many months in the year, where the temperature and moisture correspond with the known requirements of this tree. The cinchona-trees are not trees of tropical climates, properly speaking, as regards temperature, for the best bark-yielding trees do not grow below a level of 4,000 feet above the sea, and are found in the most bleak and desolate places. It is said that the enterprise of cultivating the tree in California is not necessarily an expensive one if rightly conducted, and it is suggested that the National Government should undertake it. It is estimated that the expenditure of 1,000*l.* (\$5,000) would be sufficient to introduce its culture on the Pacific Coast.—*American Letter of the Medical Times and Gazette*, September 20.

OIL OF GAULTHERIA.

OIL OF GAULTHERIA is prepared in the United States at all seasons of the year, generally by men of small means, who erect their stills in rough sheds in localities where the plant is abundant, and near a stream with sufficient fall to allow it to be carried to the refrigerating-tub. Copper whiskey-stills, holding 200 to 400 gallons, encased in brickwork, all but the head, and connected with a copper worm, are generally used. The leaves are gathered by women and children, who can collect 25 to 50 lbs. a day. The leaves are placed in the still with water, and distilled in the usual way. The oil collects at the bottom of the receiver, and most of the water is skimmed off and returned to the still with fresh leaves. The yield of oil is about 7 per cent. The gatherers are paid between 4*s.* and 7*s.* (\$1 to \$1.75) for 100 lbs. of leaves, which yield about 12 oz. of oil. This has a specific gravity 1.17, and a pale red to deep brown colour; it is generally sent to market in tin cans without further purification. One maker decolorises it by macerating it for several days with animal charcoal and filtering, the filter

and charcoal being returned to the still to avoid loss.—(From an inaugural essay by Joseph Brakely, in the *American Journal of Pharmacy*, 4th ser., vol. ix., No. 9, September, 1879, p. 439.)

MELIA AZEDARACH.

THIS native of Asia is planted as an ornamental tree in Southern Europe, and was naturalised at an early period in the Southern United States, where it is much esteemed for its beauty, its medicinal properties, and its shade. It is called *Pride of India*, *Pride of China*, *Indian lilac*, *Bead tree* (in German, *Paternosterbaum*), *China berry*, and *Pop-gun tree*. It grows rapidly, reaching the height of 30 or 40 feet.

The green fruit is used in Texas for making blacking. Whisky was largely distilled from the ripe berries in Georgia during the civil war, and was preferred by some to that made from corn or rye. A fixed oil obtained by expressing the pulp of the fruit is used for making a "poor man's soap." The fruit intoxicates the [American] robins—a species of thrush—which feed upon it during their southward migration. Hogs have been poisoned by it. The leaves and berries will preserve clothing, dried fruit, &c., from the attacks of insects. A decoction of the berries protects plants sprinkled with it from the attacks of the grub worm. A tincture of the dried fruits in whisky has been used as a vermifuge. An ointment made by stewing the pulp in lard is used with success in scald-head. The decoction of the leaves is astringent and stomachic; it has been used in hysteria. A decoction of the fresh liber (1 in 5) is administered as an anthelmintic in doses of 1 or 2 ounces followed by a cathartic. Stupor, dilation of the pupil, &c., have been observed when this remedy has been prepared from bark collected in March or April. The experiments of J. Jacobs prove that the active principle of the root liber is a yellowish white resin. Three grains of this, followed by a mercurial purgative, given to a child aged four years, proved to be at least as effectual as other vermifuges which had been previously given.—(Abstract from an Inaugural Essay by Joe Jacobs, Ph.G., from the *American Journal of Pharmacy*, 4th series, vol. ix., No. 9, September, 1879, p. 447.)

THE DIRTY-WATER OPATHY.—The German doctors seem inclined in a chivalric spirit to undertake the defence of much-abused dirt. Not long ago Hebra urged that we washed ourselves too much, and now Emmerich, in the *Vienna Med. Blatt*, attacks the theory that foul drinking-water is necessarily unwholesome. Choosing the dirtiest ditch he could find near Munich, he made its contents his daily beverage for a month, taking a quart or more daily. The water was to the eye dirty, and to the nose foul-smelling, and that to such a degree that it was difficult at first to avoid involuntarily vomiting after taking it. It contained fragments of garbage, dirty rags, hairs of men and beasts, particles of faeces, &c., as the trench was the general receptacle of privies, dirt-carts, dead cats, and the like. For the first day or two after beginning the use of this water, Dr. Emmerich suffered from headache, loss of appetite, catarrh of the bowels, coated tongue, and other symptoms of a light gastritis. In three days' time all these symptoms disappeared, and for the month during which he continued to drink the water he was as well as ever. Next he persuaded two convalescents in the hospital to try it. One had been suffering from constipation, headache, loss of appetite, and muscular pains; after a few days' use of the ditch-water he decidedly improved. The second had long been a victim to dilatation of the stomach and dyspepsia. He was not the least injured by the free consumption of the putrid fluid. Finally, about a month after the doctor had ceased his experiments, he happened to be attacked with a sharp gastro-enteritis. He rejoiced at such an opportunity of testing his ditch-water, and, therefore, without using any remedies, he began to drink it freely. In a few days he was well! From these experiences he concludes that "the use of the most foul and putrid drinking-water produces no injurious result on the system in health; and even existing affections of the intestinal canal are not in the least aggravated by it." Surely it would be fair to admit that his experiments were favourable to the *similia* theory.

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A GOOD MARKET FOR COD LIVER OIL } See page 5.

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IMPROVED JUJUBES (PATENT). See page 11.

CHEAP AND GOOD COD LIVER OIL } See Page 5.

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EXTRACT OF MALT. See page 11.

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CARRIAGE PAID COD LIVER OIL } See page 5.

FIELD'S

LIQUOR TARAXACI
 TWICE THE STRENGTH OF THE SUCCUS OF THE B.P.
 SEE PAGE 67.

FRY'S MALTED CHOCOLATE PASTE. See page 11.

FLETCHERS' CONCENTRATED LIQUORS FOR CHEMICAL SYRUPS.

Samples and Price List on Application.
 For full particulars see CHEMIST AND DRUGGIST, Sept., page 21.

FLETCHER & FLETCHER,
 North London Chemical Works, Holloway Road, N.

ELLIMAN'S EMBROCATION. See page 87.

EDITORIAL NOTES.

THE DENTISTS' REGISTER.

THE Register of Dental Practitioners and of all persons entitled to style themselves dentists in the United Kingdom has been published by the General Medical Council, and is sold by that body at the quite sufficient price of 3s. 4d., or post free 3s. 10d. It is similar in style to the Medical and Pharmaceutical Registers, and gives, in separate columns, the name of the dentist, in alphabetical order, his address, the date of his registration, and the description and date of his qualification. It appears that 483 persons are registered by virtue of licences from the medical colleges, thus divided: 336 are licentiates in dental surgery of the

Royal College of Surgeons of England; 131 are licentiates of the Royal College of Surgeons of Ireland; 11 are licentiates of the Royal College of Surgeons of Edinburgh; and 5 are licentiates of the Faculty of Physicians and Surgeons of Glasgow. Besides these the register contains the names of 2,707 persons, who, on their own declaration, were in *bonâ-fide* practice of dentistry at the time of the Act being passed, separately; 17 who were in such practice in conjunction with medicine; 11 in conjunction with surgery; 2,049 in conjunction with pharmacy; 20 in conjunction with medicine and surgery; and 2 in conjunction with surgery and pharmacy. Lastly 2 are registered as holding foreign degrees, both being doctors of dental medicine of the University of Harvard. These distinguished gentlemen, who have a section all to themselves, adorn Bournemouth and Wisbech.

The total number registered is 5,291; 126 of these practise outside the United Kingdom, and 2 have been erased from the register by death since registration.

The balance-sheet published with the Register is of considerable interest, and shows that the business of registering is one not to be despised in hard times. It gives the state of the books up to January 5, 1879. In 13 cases where the fees had been paid they had been returned, registration having been refused. But the sum of 9,432*l.* had been received for the registration of 4,716 persons up to that date. After paying out of this nearly 500*l.* for the Council's expenses in reference to this business, a hundred guineas honorarium to the Registrar, and about 200*l.* for postage, printing, and stationery, there remained a balance of 8,610*l.* 5*s.* 10*d.* Since then about 500 persons must have paid 5*l.* each for registration, so that a sum not far short of 10,000*l.* must now be available. According to Clause 32 of the Act, this balance is to be applied towards the support of museums, libraries, or lectureships, or for public purposes connected with the profession of dentistry or dental surgery, or towards the promotion of learning and education in connection with dentistry or dental surgery.

LONDON CHEMISTS' ASSISTANTS' ASSOCIATION.

THE London Chemists' Assistants' Association have issued a programme for the ensuing session, which is the third in their history. The inaugural address was delivered by the President (Mr. Branson) on the 8th inst., a paper on "The Preliminary Examination" is to be read this evening (October 15), a *conversazione* will be held at St. James's Hall next Wednesday evening, and then up to the end of April the Wednesday evenings will be occupied alternately with papers and discussions and social entertainment. The annual dinner is to come in on January 28. At the *conversazione* next week a musical programme will be gone through, and exhibits have been promised by Messrs. Maw, Rimmel, Jackson, Ladd, Swift, Hopkins & Williams, the Stereoscopic Company, and others. The general meetings are held at the rooms of the Association, 32A George Street, Hanover Square.

ELEGANT PROCESS OF CAPSULING BOTTLES.

A NEW system of capsuling bottles has come into fashion from France. It is much more rapid than the method of affixing lead capsules, and some may think that it gives more elegant effects. The medium for forming the capsulage is a viscous volatile liquid, into which the top of the bottle is dipped, and immediately withdrawn with a slight rotatory

motion. It leaves a transparent capsule, and the effect is better if a label bearing a monogram or trade-mark had been previously attached to the top of the bottle. We find the following formula for the liquid, given by M. Soulan, of St. Emilion:—

	Parts
Yellow resin	20
Ether	40
Collodion	60
Fuchsin or other tint, q. s.	

MINERAL SOAP.

IN 1876 the American journals announced the discovery of a mine of soap in Ventura County, California. A Mr. Hubbard accidentally knocked a piece of rock into water, saw it melt away, examined it, and found it soapy. For a year he used it in his own family, and then associated himself with Messrs. Cronk & Bickford to turn his discovery to commercial account.

Another soap-mine has recently been opened up in the State of Nevada, adjoining California. The account of the event is somewhat more detailed than in the earlier case. The mineral is said to be steatite. The stratum forming the mine is from 3 feet to 10 feet thick, and rests horizontally in a steep bluff of volcanic matter, on the eastern side of Smith's Creek Valley, Elko County, Nevada. The farmers, cattle men, and sheep herders in the district all use it for washing purposes. When first dug from the stratum it looks precisely like immense masses of mottled Castile soap, the mottling element being a small percentage of iron oxide. It is said to be quite as powerful as manufactured soap, and when a little alkali and perfume are added it is well adapted for toilet purposes. It is also reported that a large firm in Elko are about to introduce it into the market.

Rock soap is actually an article of commerce in the Western States, for we find in a recent consular report that 14,285 lbs. were sent eastward by rail from California in 1878.

THE WEIGHTS AND MEASURES ACT.

A NEW INTERPRETATION.

A LONDON chemist has recently been condemned to a nominal fine for using an arrangement for weighing which hitherto has been considered perfectly legal and highly convenient. On the beam of a pair of scales used for weighing liquids a movable weight was hung and used for counterpoising the vessel in which the liquid was to be weighed. The chairman of the bench of magistrates before whom this was tried considered that such an arrangement was not legal. A case like this in some details was decided at Perth on September 17. The Caledonian Railway Company was summoned by the Chief Constable of Perthshire for having at their railway station of Luncarty a number of weights (belonging to a weighing machine) not of the Board of Trade standard, not stamped as such on the top or side, and not verified by the inspector of the county as correct. It was urged in defence that the pieces of metal were not weights, but part and parcel of a machine, and that perfect accuracy was secured by them. It was stated by practical witnesses that it would be difficult, if not impossible, to make those machines to suit imperial weights, and that if the defendants were convicted great detriment to the trade of the country would result. The Sheriff decided that the machines did not conform to the statute, and fined the company the modified penalty of 2*l.*, with expenses, at the same time ordering the pieces of metal to be for-

feited. The Sheriff, in a long judgment, said the general public must be protected in all their dealings by just weights and balances, patent and open to the eyes of the most vulgar, and not by subterranean appliances, however nice and accurate science might establish them to be. The Board of Trade has been appealed to on the matter; it refuses to give an authoritative decision on the legality or illegality of weighing machines, but suggestively points out that generally the Act of 1878 makes nothing illegal that was not illegal before.

TEA, COFFEE, AND CHOCOLATE.

In a French journal M. Stanislas Martin gives a somewhat forcible reason why tea has attained in England a preference over coffee and chocolate. We have lived all these years in England without hearing of the curious experiments named before, but we have no intention of placing our ignorance in competition with the extensive knowledge of Mr. Martin.

One day, he says ("Once upon a time" would have been a better way to open the story), the English Government handed over to a certain scientific man (not named) three convicts condemned to death. The three were offered the choice of being hanged forthwith or of submitting to certain scientific experiments. With doubtful judgment, but with a generous devotion to the cause of science, they all submitted to the experimenter. Number 1 was to be nourished exclusively on tea, No. 2 on coffee, and No. 3 on chocolate. No other food or liquid whatever was to be given. The tea man lived for three years, and then died. He had become almost a skeleton, and was in a transparent condition. Coffee disposed of No. 2 in two years. He died, burned, as though an interior fire had calcined him. The third lived on chocolate for eight months, and he died in a very advanced state of rotteness, and was, as it were, devoured by worms.

The story is worthy of the imaginative skill of those Jesuit teachers who, as M. Ferry tells us, picture Protestant England as the home of pagans and cannibals, but hardly does credit to the abilities of M. Stanislas Martin as a reliable historian.

THE BELL SCHOLARSHIPS.

At the recent distribution of prizes at Bloomsbury Square, Mr. G. S. Taylor remarked on the inexplicable fact that only 11 candidates could be found for the scholarships established in memory of Jacob Bell. That was the precise number this year, being one less than last. Four years Mr. Taylor had shared with another in conducting this examination, and numerically the result was disappointing in the extreme. The last bequest of Mr. Bell was a gift of 2,000*l.* "to be expended in establishing or otherwise increasing the efficiency of a School of Pharmacy, or in promoting Pharmaceutical Education in such manner as the Council may deem expedient." In remembrance of one who had spent his life in advancing the interest of others these two strangely-neglected endowments were established. The intention was that two rewards should be offered most in consonance with the known wishes of the pharmacist whose name they bore. We should feel inclined to urge the keenest competition for these scholarships as an act of gratitude were the advantage to be derived not so conspicuously on the student's side.

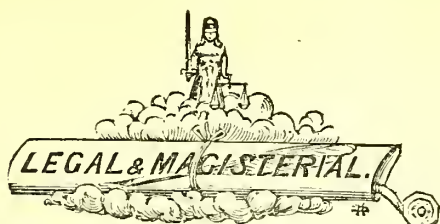
The original arrangement was to place at disposal annually one senior and one junior scholarship. The senior was open to persons under 24 years of age who were Associates at the time of passing the Major examination. The junior was open to Associates and apprentices or students of the Society who were under 21 years of age. But in 1872 the Council desired to extend the benefit of these scholarships, and abandoning

the senior they substituted for it a second junior scholarship, the change coming into effect in 1874. Candidates under the new regulations must now be registered students or apprentices of the Society, under twenty-two years of age, and must have been engaged for not less than three years in the pharmacy of a pharmaceutical chemist or chemist and druggist. The examination is entirely a written one, and may be conducted in the country under supervision as provided for the Preliminary examination. This statement, which is taken from the official notice, will serve to show that the class of young men to whom these scholarships are offered are in a position to qualify themselves with ease. For the examination, an elementary knowledge is required of Latin, French, or German (one language only); English composition, arithmetic, and the British and metrical systems of weights and measures; elementary chemistry, pharmacy, and botany. It is expressly announced that the scholar is supposed to have made just such progress as may be reasonably looked for during an apprenticeship. Application, accompanied by proper certificates, must be sent in to the secretary on or before June 1. The value of each scholarship is 30*l.* per annum; free laboratory instruction is added, and admission to the lectures, not forgetting a present of books to the value of 2*l.* 10*s.*, provided by the liberality of Mr. T. H. Hills. The scholarships come into operation at the commencement of the October Session, and are tenable for one year.

NEW TARIFF IN VICTORIA.

THE Victorian Board of Legislature have under consideration a tariff which, if passed, will materially increase the import duties on all classes of goods, and will press especially heavily on drugs. Thus the duty on opium and its preparations will be raised from 10*s.* to 20*s.* a pound. The greater number of drugs and chemicals will be subjected to a duty of 20 per cent. *ad valorem*. At present 22 chemicals and drugs are subjected to specific duties, all others being free; and under the new tariff bleaching powder, borax, dyes, essential oils and essences not containing alcohol, gums, isinglass uncut, medicinal roots, seeds, leaves and flowers, saltpetre, nitrate of soda and sulphur, or in other words, raw materials not produced in the colony, will still be admitted untaxed. The Pharmaceutical Society of Victoria has taken vigorous steps to prevent this tariff taking effect so far as regards the drug trade. A circular has been issued by the officers and council of the society pointing out the weightier reasons against its enactment. At the present time there are 55 hospitals and benevolent asylums in Victoria. The cost of drugs, chemicals, and surgical appliances to these institutions is about 10,000*l.* per annum. If the proposed tariff is passed, the cost of these items will be nearly one-fourth more, and with such a tax the Government grants towards their support must be increased. The dispensaries and hospitals supported by private contributions, and the friendly societies' dispensaries will be very heavily taxed. And under the proposed tariff nearly all the chemicals used by soap-makers, candle-makers, glassworks, paper makers, oilmen's stores manufacturers, cordial makers, and others, are taxed to nearly one-fourth of their value. Under these circumstances, the removal from the tariff of the clauses affecting drugs and chemicals is strongly urged.

IT'S FUNNY when you ask a man to advertise he generally declines with the statement that nobody will see it. But if you advertise some little caper of his in the news column gratis, he gets indignant over the certainty that everybody will see it. At least, that is what a veteran newspaperman says.



PROSECUTIONS UNDER THE 17TH SECTION OF THE PHARMACY ACT.

At the Blackburn Borough Police Court on Friday, September 26, before Messrs. E. Wharton (chairman), and W. Hopwood, Stephen Green, drysalter and patent medicine vendor, appeared in answer to a summons charging him with unlawfully selling poison. Mr. Henry Glaisyer, solicitor, Birmingham, appeared in support of the summons, being instructed by the Chemists and Druggists' Trade Association of Great Britain. He said the summons was issued by Mr. William Frederic Haydon, the secretary of the Association, under the provisions of the 17th section of the Pharmacy Act, 1868, which said, "It shall be unlawful to sell any poison either by wholesale or by retail, unless the box, bottle, parcel, wrapper, or cover in which such poison is contained, be distinctly labelled with the name of the article and the word "Poison," and with the name and address of the seller of the poison, and any person selling poison otherwise than is herein provided shall, upon a summary conviction before two justices of the peace in England, be liable to a penalty not exceeding 5*l.* for the first offence, and for the purposes of this section, the person on whose behalf any sale is made shall be deemed to be the seller." Mr. Haydon came to Blackburn on July 30 last and visited the defendant's shop in Bolton Road and purchased a pennyworth of oxalic acid, a pennyworth of white precipitate powder or ammoniated mercury, and a packet of rat poison containing strychnine, all of them being poisons mentioned in the schedule to the Act, and subject to its provisions. It was proposed to proceed only in one of these cases—that of the oxalic acid. The label on the packet contained only the word "Poison," and, therefore, there were two particulars in which the statute had not been complied with. The name of the poison was not mentioned, and the name and address of the seller of the poison was not stated. The defendant was not a chemist, and was, therefore, unqualified to sell poison at all. A penalty is provided by the statute for selling poisons by unauthorised persons, but such penalty was not recoverable before the magistrates, and the defendant was charged on that occasion with having infringed the statute by not having labelled the packet, in accordance with the provisions of the 17th section. Mr. Glaisyer, in continuation, drew attention to the fact that the business belonged to the defendant beyond a doubt, for his name appeared on a board over the door, and he had also paid rates in respect of the premises. The provisions of this statute were necessary in order to protect the public, and afford a ready means of tracing where poison was obtained in cases where it was subsequently improperly used.

The Chairman of the Bench (to the defendant): You have heard the charge against you. Do you plead guilty, or not guilty?

The Defendant: I plead guilty, and am sorry for doing wrong. I have been in the trade 12 years.

The Chairman: You must have known you were doing wrong.

The Defendant: I never heard of a case like this before.

Mr. Glaisyer: I may state, for the information of the Bench, that in consequence of the sale of poison being made in this way so frequently, the present proceedings have been instituted in order to make known the provisions of the statute.

The Chairman (to the defendant): This is the first case of this description that we have had in this court, and we shall be content if you pay a fine of 20*s.* and the costs. You are liable to a fine of 5*l.* and costs.

At the Liverpool Borough Police Court on Saturday, September 27, before Messrs. Henry Hugh Hornby and Edward Brown, Justices of the Peace, Mr. Richard Rowland Minton and others, trading as "R. R. Minton & Co.," appeared in answer to a summons, charging them that they did, on August 5 last, at the borough of Liverpool, unlawfully sell to William Frederic Haydon, at No. 135 St. James' Street, certain poison—to wit, oxalic acid—in a certain packet, the cover of which packet did not set forth the name of the article or the name or address of the sellers of the same, contrary to the provisions of the 17th section of the Act 31 & 32 Vic., cap. 121.

Mr. Henry Glaisyer, solicitor, of Birmingham, appeared in support of the summons.

Mr. Haydon, having proved the purchase of a pennyworth of oxalic acid, which was supplied to him in a packet with merely the word "Poison" written on the cover,

Mr. Goodwin, one of the principals, admitted the offence, but assured the Bench that the firm was not aware that the acid was being sold. He left the matter entirely to the Bench, and promised that nothing of the kind should occur in future.

A fine of 10*s.* and costs was inflicted.

At the Birmingham Police Court on Wednesday, October 1, before Messrs. Ralph Heaton and Henry Wiggins, Joseph Guest Earp, oil and colour merchant, 22 Cheapside, Birmingham, was summoned by the Chemists and Druggists' Trade Association of Great Britain for a contravention of the 17th section of the Pharmacy Act, 1868, "by selling certain poison—to wit, oxalic acid—in a certain packet, the cover of which packet did not set forth the name of the article or the name or address of the seller of the same, contrary to the statute in such case made and provided." After reading the summons, the magistrates' clerk (Mr. J. B. Hebbert) asked the defendant whether he was guilty.

Defendant: I know nothing about it.

Mr. Glaisyer: I appear in this case, instructed by the Chemists and Druggists' Trade Association of Great Britain. The information was laid by their Secretary, Mr. W. F. Haydon. The defendant occupies premises in Cheapside, where he trades as an oil and colour merchant.

Defendant: I do not remember anything about it. Two months have elapsed since August 8; I do not think they ought to wait so long.

The Magistrates' Clerk: These cases require some consideration before proceedings are taken.

Mr. Glaisyer, having explained the section under which the summons was taken, further stated that Mr. Haydon visited the defendant's shop, 22 Cheapside, Birmingham, on August 8 last, and there he purchased a pennyworth of oxalic acid, which is one of the poisons mentioned in the schedule to the statute. The label placed on the packet contained the word "Poison" only. There were, therefore, two particulars in which the section of the Act had not been complied with. There was no doubt the business belonged to Mr. Earp; his name appeared over the shop door, and, in addition, he was rated for the premises, and had paid rates due in respect of them.

Defendant: No doubt about it.

Mr. Glaisyer: I am instructed to press for a heavy penalty, Mr. Haydon having in June, 1877, two years since, purchased poisons from the defendant, who was at that time warned that he was acting illegally. A month after that purchase Mr. Haydon was told by an assistant of the defendant that Mr. Earp only sold poisons to persons he knew. In August last defendant sold the poison with which he is now charged.

William Frederic Haydon, called, sworn, and examined by Mr. Glaisyer.

Q. Where do you reside?

A. At 23 Burlington Chambers, New Street, Birmingham.

Q. What are you by profession?

A. A pharmaceutical chemist.

Q. Have you any appointment?

A. I am the secretary of the Chemists and Druggists Trade Association of Great Britain.

Q. Did you go to the defendant's shop in August last?

A. I went to the defendant's shop on August 8 last.

Q. What did you purchase?

A. One pennyworth of oxalic acid.
 Q. Have you the purchase there?
 A. The oxalic acid then purchased I have in my hand.
 Q. Is the packet labelled?
 A. It is labelled with the word poison only.
 Q. Have you tested the contents?
 A. I have.
 Q. What do you find them to be?
 A. I found the parcel contained commercial oxalic acid.
 Q. Is the defendant a chemist and druggist?
 A. He is not.
 Q. How do you prove that?
 A. By the Register published by the Pharmaceutical Society of Great Britain, which I now produce.

The Bench: That question does not arise on the information.

Mr. Glaisyer: Is the defendant entitled to sell poison?

A. He is not entitled to sell any poison scheduled under the Pharmacy Act.

Q. And you applied for an information in this case?

A. I did, in my official capacity as Secretary of the Chemists and Druggists' Trade Association of Great Britain.

Q. Have you purchased poison previously from defendant's shop?

A. I have. In June, 1877, I purchased from the defendant oxalic acid and red oxide of mercury, both poisons scheduled under the Pharmacy Act, and this being, so far as I was aware, the defendant's first offence, I reported the purchases to the Secretary and Registrar of the Pharmaceutical Society of Great Britain. I now produce a letter dated July 5, 1877, which I received from the Secretary and Registrar of that Society, stating that he had written to the defendant giving him notice that if he continued to infringe the provisions of the Pharmacy Act legal proceedings would be taken against him without further notice. In July of the same year I went to the defendant's shop, and again endeavoured to purchase oxalic acid, but was told by the assistant that they had ceased to sell poisons except to persons they knew as customers.

The Defendant: I have never been warned.

The Magistrates' Clerk (to Mr. Haydon): The letter you have produced is not admissible as evidence that the defendant has been previously cautioned.

The Defendant: My foreman has omitted to put the name of the article and my name and address on the packet. We sell oxalic acid to boot-makers and for cleaning brass.

The Magistrates' Clerk (to Mr. Haydon): Have you cautioned the defendant yourself?

Mr. Haydon: I have not.

Mr. Heaton (addressing defendant): You have not conformed to the Act of Parliament. It requires that you should put the name of the poison upon the packet, also your own name and address. Had it been clearly proved that you had been cautioned previously we should have inflicted the full fine. You must, however, pay 20s. and costs.

THE NATURE AND QUALITY OF SODA WATER.

IMPORTANT PROSECUTION UNDER THE SALE OF FOOD AND DRUGS ACT.

At the Newport (Mon.) Borough Police Court on October 10, 1879, before Dr. Woollett (chairman), and Messrs. Charles Lewis and Henry Phillips, Mr. Eleazer Davis, chemist and soda water manufacturer, of 55 Dock Street, Newport, was charged under the Sale of Food and Drugs Act, 1875, for that he did in the said borough "sell a certain article, called soda water, not of the quality and nature asked for."

Mr. Line (Deputy Town Clerk) conducted the prosecution, and Mr. Henry Glaisyer, LL.B., instructed by the Chemists' and Druggists' Trade Association of Great Britain, appeared for the defendant.

Mr. Line said: I appear for the prosecution in this case. It is a prosecution by the public officer under the Sale of Food and Drugs Act, 1875, against the defendant, who is a chemist and druggist, and also a manufacturer of soda water, residing in Dock Street, in this town.

The case is somewhat different to those we have hitherto brought before you under this Act. We have brought into this court men charged with having added water to milk, and lard to butter, for the purpose of increasing the bulk of the goods; in this case we are assured the defendant has supplied us with a totally different article from that demanded by the purchaser. Now, by the 6th section of the Act it is enacted, "No person shall sell, to the prejudice of the purchaser, any article of food or any drug which is not of the nature, substance, and quality of the article demanded by such purchaser, under a penalty not exceeding 20*l.*; provided that an offence shall not be deemed to be committed under the section in the following cases, that is to say, (1) where any matter or ingredient not injurious to health has been added to the food or drug because the same is required for the production or preparation thereof as an article of commerce, in a state fit for carriage or consumption, and not fraudulently to increase the bulk, weight, or measure of the food or drug, or conceal the inferior quality thereof; (2) where the drug or food is a proprietary medicine, or is the subject of a patent in force, and is supplied in the state required by the specification of the patent; (3) where the food or drug is compounded as in this Act mentioned; (4) where the food or drug is unavoidably mixed with some extraneous matter in the process of collection or preparation.

In this case I have first of all to ask you to amend the summons, as there are two or three inaccuracies in it. In the first place, it does not say the article is sold to the prejudice of the purchaser; secondly, we must, by the provisions of the amended Act passed last session, state who the purchaser is, and give the particulars of the offence committed. I may say, sir, my friend Mr. Glaisyer, of Birmingham, who represents the defendant, has consented to the amendment, and that the summons now stands as follows:—"That the defendant unlawfully did sell, to the prejudice of one Thomas Henry Jones, the purchaser thereof, a certain article of food—to wit, soda water—which was not of the nature, substance, and quality of the article demanded by such purchaser, the article of food demanded by such purchaser being soda water, and the article of food so sold as aforesaid being not soda water, but water charged with carbonic acid gas."

Mr. Glaisyer: I consent to that alteration.

Mr. Line: It is a somewhat important case, and the facts are these:—On the day in question, September 15 last, our public officer went to the defendant's shop and asked for six bottles of soda water, which were supplied to him. The ordinary course was adopted by the officer as to the division of the samples. Two of these bottles were sent to our borough analyst, whose certificate states: "I, the undersigned, public analyst for the borough of Newport, do hereby certify that I received on September 16, 1879, from Mr. T. H. Jones a sample of soda water (bottle marked No. 125) for analysis, and have analysed the same, and declare the result of my analysis to be as follows:—I am of opinion that the same is a sample of water charged with carbonic acid gas, and I am of opinion that the said sample contained the parts as under, or the percentage of foreign ingredients as under:—Total solid residue, 14·63 grains per gallon; metallic impurity equivalent to $\frac{1}{10}$ grain of lead per gallon. Observations:—This sample is ordinary water charged with carbonic acid gas, and does not contain added bicarbonate of soda, and is not 'soda water.' The metallic impurity is not considerable, but care should be taken no lead pipes or solder joints containing lead are used in the apparatus employed in the manufacture. As witness my hand September 23, 1879. (Signed) J. W. Thomas, F.C.S., Mem. Inst. Chem." I may say, sir, that we consider this so important a case that, although my friend telegraphed to me to have Mr. Thomas, our analyst, here to-day, I had previously asked Mr. Thomas to be present, so that my friend will have the opportunity of cross-examining him on his certificate. The question you will have to consider is whether water simply charged with carbonic acid gas and containing no soda is soda water within the meaning of the Act. My friend will perhaps produce before you, gentlemen—scientific gentlemen—to endeavour to show you that this article without soda is soda water. This defendant is a chemist, and I submit that a person going to a chemist's shop would expect to get a different article from what he would expect to get if he

asked for the same thing at a restaurant. Soda is a highly important medicine.

Mr. Glaisyer: You are not going into the question of a drug, I suppose. We are not summoned on that.

Mr. Line: I am not; it is a question of a food.

Mr. Glaisyer: Then don't go into the question of soda being a drug, please.

Mr. Line: It is not then the article of food which a person going into a chemist's shop would expect to receive when he had asked for soda water.

Mr. Glaisyer: Why into a chemist's shop?

The Chairman of the Bench: Is it an article of food?

Mr. Line: It is an article of food sold by chemists, and I submit in this case the chemist is selling as soda water a water not containing soda, and that consequently the defendant has not supplied the article asked for and expected. I am glad the defendant is represented by a solicitor of standing, the solicitor of the Chemists and Druggists' Trade Association of Great Britain, and I wish to say, sir, we do not drag this person here as an ordinary malefactor. If you hold that in getting this particular water the inspector has obtained what he may have reasonably expected to get, then sir, of course you will dismiss the summons, if, however, you hold otherwise, I shall be satisfied with a small penalty. My friend mentioned to me yesterday that he intended to raise some few points of law in this matter, but as I shall have an opportunity of reply in this case I shall not discuss any possible points now.

By the Bench: Have you selected Mr. Davis especially as being a chemist? You seem to dwell very much on the fact of his being a chemist.

Mr. Line: Soda water is, of course, a medicated water.

Chairman of the Bench: Then that takes it out of the category of its being a food: you wouldn't go to the chemist's shop to buy a food.

Mr. Line: Chemists sell many goods that are not medicines or drugs; for instance, pomades, tooth-powders, and such like things.

By the Bench: We must shut our eyes to the fact that it is a chemist who is the defendant in this case.

Mr. Glaisyer: I am very glad to hear that remark from the Bench, as it has anticipated some observations I was about to make.

Thomas Henry Jones called, sworn, and examined by Mr. Line, said: I am the officer appointed under the Sale of Food and Drugs Act in this borough. I went to the defendant, who is a chemist and druggist and soda water manufacturer, residing in Dock Street, on September 15 last. I saw defendant and asked for six bottles of soda water, which he supplied and I paid for. I told him the soda was to be analysed by the public analyst, and I offered to divide it into three parts, which offer he accepted. I labelled it and sealed it in his presence, No. 125.

You put the official seal of the borough upon it, and handed two bottles to the defendant?—I did.

What did you do with two of the other bottles?—I took them to Mr. Thomas, the public analyst, at Cardiff, the following day.

Did the defendant make any remark when you handed him the two bottles?—He said, "This is soda water, there are about 3 grains to each bottle."

When you asked the defendant for soda water what did you expect to get?—Soda water. (Laughter.)

What did you understand by soda water?—Water containing soda—soda water.

Cross-examined by Mr. Glaisyer:—

You asked for soda water, you say?—I did.

What proportion of soda did you expect to get in it?—I cannot say.

Any portion would satisfy your requirements then?—As far as I was concerned.

You issued this summons?—I did.

Have you a roving commission to make such purchases, or why did you go to defendant's shop in particular?—I have a roving commission.

You didn't expect to get a medicine of nauseous taste and highly alkaline?—No.

You expected to get a pleasant beverage?—I can't say.

Was it a pleasant beverage you expected to get, or would it be a soapy-tasted water?—I have tasted two sorts of soda water—some had a soapy taste, some were pleasant.

Which did you expect to get?—I should expect to get a soapy-tasting article.

Then, knowing there were those two kinds sold, did you ask especially for any particular kind?—No.

You say you labelled the bottles in defendant's presence and put the seal on them; I suppose you put them under the gas and dropped the wax right into the necks burning hot?—Yes.

You didn't know there was indiarubber in the necks of the bottles that might be affected by the hot wax?—In that case I should consider the liquid would come out.

If you look at that bottle you will see a ring of indiarubber just where you placed the wax (bottle produced and handed to witness)?—Yes.

Now, if you dropped burning wax into that you would get a little wax under the indiarubber?—I should say not.

Mr. Glaisyer: I think this is a suitable time at which to raise a point of law to which reference has already been made. It is this: The provisions of that section of the Act which relate to the division of the sample intend that by such division a portion of the purchase shall be retained by the defendant, another portion shall be sent to the analyst, and a third shall be retained by the purchaser, and that all these portions shall be identical in their constituents. From the division which has been made in the present case this result is impossible, because by the process which the defendant adopts in the manufacture of his soda water each bottle necessarily contains a variable quantity of soda, from this simple fact, which I am prepared to prove, that the soda is introduced into each bottle separately; and consequently the only way in which the purchase in this case could be satisfactorily divided to meet the intention of the Act of Parliament would be by an actual division of each bottle of soda water.

By the Bench: According to your argument it would be impossible in any case to properly divide the samples.

Mr. Glaisyer: You could divide any article purchased into three parts.

Chairman of the Bench: Is it a matter of fact that the soda is put into each bottle separately?

Mr. Glaisyer: Yes; and I submit it is a point of law as to whether this sample has been properly divided or not.

Mr. Line: I submit the sample has been properly divided. The section referred to by my friend is the 14th section of the Act, which is as follows:—"The person purchasing any article with the intention of submitting the same to analysis shall, after the purchase shall have been completed, forthwith notify to the seller or his agent selling the article his intention to have the same analysed by the public analyst, and shall offer to divide the article into three parts, to be then and there separated, and each part to be marked and sealed, or fastened up in such manner as its nature will permit, and shall if required to do so proceed accordingly, and shall deliver one of the parts to the seller or his agent. He shall afterwards retain one of the said parts for future comparison, and submit the third part, if he deems it right to have the article analysed, to the analyst." Well, I say, sir, the article purchased by us consisted of six bottles. If we had made six distinct purchases, then each bottle must have been separately divided, but such was not the case. I think in this case it will be found that the only active principle in the soda water was the gas, which would have vanished had the bottles been opened.

Mr. Fox (Magistrates' Clerk): You must assume, then, that supposing there were three grains in each of these two bottles, and none in the others, you would then have had a portion of alkali in each bottle.

Mr. Line: There have been hundreds of cases in which the samples have been divided as in this case.

Mr. Glaisyer: This particular point has never yet been raised.

Mr. Line: We have adopted the universal course.

The Bench conferred.

Chairman of the Bench (addressing Mr. Glaisyer): I think you had better go on.

Mr. J. W. Thomas, called, sworn, and examined by Mr. Line, said: I am a Fellow of the Chemical Society, a Fellow of the Institute of Chemistry, and public analyst for the boroughs of Newport, Cardiff, and the county of Monmouthshire. On September 16 last I received from Inspector Jones two bottles of soda water, No. 125. They were sealed

with the official seal of the borough of Newport. I took particular notice that the rubber was not destroyed in any way; it was moist, and the wax did not adhere to it in the slightest. Both bottles were analysed.

And is this your certificate (handing certificate to witness)?—Yes.

By the Bench: Does that refer to one or two bottles?—To both.

Mr. Line: Are you acquainted with the properties of soda?—I am.

What effect would soda water have?—Soda water containing a reasonable amount of soda, if taken internally, would have the effect of neutralising acidity in the stomach.

Would water charged with carbonic gas have that effect?—None whatever.

It would have a different effect entirely?—I cannot say it would have any effect whatever.

What is the proper amount of soda to be added?—30 grains to the pint is the Pharmacopœia standard.

And what ought a bottle of $\frac{1}{2}$ -pint to contain?—15 grains.

This soda water should have contained 15 grains to each bottle?—Yes; 15 grains of bicarbonate of soda.

Mr. Fox: But it contains, you say, none at all?—None whatever.

Chairman of the Bench: In your analyses of soda waters generally do they contain soda?—Oh, yes.

Chairman of the Bench: I must say that the soda water I generally drink contains no soda at all.

Cross-examined by Mr. Glaisyer: You say Pharmacopœia soda water contains 30 grains to the pint?—That is so.

But there is another kind of soda water?—Not to my knowledge.

Then whenever soda water is asked for the British Pharmacopœia preparation should be supplied?—I didn't say that.

Then there is more than one kind of soda water?—No; I didn't admit that.

Will you explain your answer then?—It depends upon the quantity of soda added; I cannot say it differs in kind.

Well, if a $\frac{1}{2}$ -pint bottle contains 15 grains of soda, what do you say that is?—Soda water.

Supposing it contains only 3 grains?—It would still be soda water.

Supposing it contained half a grain?—Then it would probably be an impurity in the water from which the soda water was made. I may say I think the standard of the Pharmacopœia is too high.

Would not Pharmacopœia soda water be dangerous if taken too frequently?—I cannot say.

Would it not be injurious if taken in large quantities?—That is a medical question I cannot answer.

You say you have examined many samples—with what result?—They contained soda—from 5 grains to 15 grains per bottle.

You have never had a sample containing less than 5 grains?—No.

Is the British Pharmacopœia soda water such a preparation as the public would drink?—It is not very palatable.

Is it not very nauseous?—Well, it is not palatable.

Have you had soda water submitted to you for analysis which contained, as you say this sample contained, no soda?—I have had samples submitted to me as soda water which I don't admit to be soda water.

Your certificate is an analysis of both bottles submitted to you?—Yes, taken separately, and the analyses agree in every particular.

There was a trace of soda present?—No, not of added soda: it had an alkaline residue.

Is the residue of all water alkaline?—In the majority of instances it is.

Have you examined Newport Waterworks water?—Yes; the residue is slightly alkaline.

To what extent?—Only a very moderate trace; about the same as in this soda water.

Is the alkalinity due to soda?—To a certain extent it may be.

Do you know whether it is or not?—I am not absolutely certain.

Do you recollect from your analysis of Newport water what the amount was?—It is stated on my certificate that this soda water contained 14.63 grains of solid residue per

gallon, and the town water contains from 13 to 15 grains per gallon, according to the state of the weather.

Have you frequently had samples to analyse?—No, not very frequently.

There may be only 13 grains of residue per gallon?—Yes, possibly.

And there may be one grain to the gallon of added matter in this soda water?—Yes, but not of carbonate of soda.

How so?—Because I should have been able to estimate it in the residue.

How did you estimate the alkalinity?—By the standard tests.

Did you test both bottles for alkali?—I tested both residues.

You say in your certificate that there was a metallic impurity amounting to one-twentieth of a grain of lead to the gallon: now would that amount be injurious to health?—No.

Perfectly innocuous?—No, I don't say that.

How did you test the water for lead?—By sulphuretted hydrogen.

How do you account for the presence of lead?—From the pipes in the manufacture.

Could it not have got in in any other way?—Well, I don't think it could.

By the Bench: Do you think it is likely to have come from the apparatus?—Yes.

Mr. Fox: What is the smallest quantity of bicarbonate of soda you could have traced in the soda water?—I could readily have detected half a grain.

By the Bench: Then if half a grain of soda had been added to the water of each bottle you would have detected it?—Yes, sir.

Mr. Line: That is my case.

Mr. Glaisyer: The case, as far as I am prepared to carry it, is this—that soda water has been largely manufactured for use as an agreeable beverage, and that as such it should be as free as possible from medicinal properties. It is well known that the article in general use is a very different article from that prepared according to the formula of the Pharmacopœia, and I think I shall produce evidence to prove to you that the Pharmacopœia soda water would be injurious to health if drunk constantly. The case seems to have shaped itself simply into the question whether the defendant did sell soda water with or without soda, and I think I may keep the Pharmacopœia preparation out of the question.

Chairman of the Bench: Quite so; what is soda water of commerce?

Mr. Glaisyer: Then I shall call the defendant and the boy that assists him in the soda-water department of his trade, and they will tell you that the water is charged with carbonic acid gas, and that the soda is added to each bottle separately before being filled with aerated water. I shall call as witnesses Professor Atfield and Mr. Stoddart, both eminent analysts, and they will both tell you that soda was present in the samples they analysed and, therefore, you will see the force of my objection which I previously urged as to the division of the sample, and think in the end you will either be satisfied to dismiss the case upon the technicality I have raised—and which is really something more than a technicality in this case—or to dismiss the case upon the consideration that the defendant did actually supply the soda water of commerce.

Mr. E. Davis, called, sworn, and examined by Mr. Glaisyer said: I am a chemist and druggist and a soda water manufacturer in the borough, and have been in business thirteen to fourteen years. I have manufactured soda water between four and five years.

Do you make the British Pharmacopœia preparation?—I made it once, one bottle for my own use.

Have you ever had it asked for?—Never.

What is your process of manufacture?—Whiting is placed in a leaden generator, sulphuric acid is added, and the carbonic acid gas evolved is conducted by means of pipework into a gasometer; it is then pumped into a soda water machine, and forced from thence through the bottling machine into the bottles. Previous to the bottles being placed in the machine for charging each bottle has a certain amount of bicarbonate of soda placed in it.

Is that done under your superintendence?—When it

not done by myself it is done under my immediate superintendence.

Describe the manner in which the soda is placed in the bottles?—Cases containing the bottles are arranged side by side along the bottling machine, the bottles are placed in rows consecutively, then the soda is added to one bottle after another.

By the Bench: Is that always done?—Yes, invariably. A little soda is taken on the point of a knife and dropped into the neck of each bottle.

Mr. Glaisyer: Is it not weighed?—No.

You use one make of bottles, I believe?—Yes, only one make—Codd's patent.

They are peculiar in their construction?—Yes; this is one of them (bottle produced handed to Bench).

Do you sell any kind of soda water in other bottles?—No.

Do you recollect the purchase by the inspector?—Yes.

Is his evidence correct?—Yes, in substance. I don't remember saying anything about three grains of soda being contained in each bottle.

Did you have any conversation about soda?—Yes, I believe there was.

Was the amount stated?—I cannot say positively.

By the Bench: What is the smallest quantity you would put into each bottle?—Well, about $1\frac{3}{4}$ or 2 grains.

Would it be more than a grain?—Yes; I did not think it was necessary to be very distinct or definite as to the amount, so long as some was put in.

Cross-examined by Mr. Line: Then you do think it necessary to put some soda in?—Yes.

You are not very particular about that, I suppose?—I am.

Oh, you do think that soda is an important part of it?—No.

Then why are you so particular about it?—On account of cases which have occurred in the country.

So you have been watching cases in the country?—No; I cannot say that I have.

It is your own answer, what do you mean by it?

Mr. Glaisyer: You said you did not consider the soda important, and then my friend asked you why you put it in?—Because the impression upon my mind was that it was necessary for me to have some soda in my water.

Mr. Line: Yes; then my assumption is correct that you have been reading similar cases which have occurred, and that is the only reason you have put soda in your soda water?—No, that is not so.

You consider it necessary, in order to comply with the provisions of the Act, to put some soda in?—Yes.

Do you think the Act is complied with by putting in a quarter of a grain?—Yes.

Do not the bulk of the people purchasing soda water from your shop buy it for medicinal purposes?—I do not think so.

You don't sell brandy as well?—No.

Then people don't come to you and ask for brandy and soda as a beverage?—No.

Chairman of the Bench: Have you always put soda in?—Always, sir.

Did you say the generator in which you make your gas was made of lead?—Yes, sir.

Chairman of the Bench: Then I would advise you to alter it, as lead is pretty sure to come over with the gas.

Albert Harvey, called, sworn and examined by Mr. Glaisyer, said: I assist the defendant in his business by helping him to make soda water. I put the soda into the bottles by means of a knife.

Chairman of the Bench: Into every bottle?—Yes, sir.

Mr. Glaisyer: You take them in regular succession, putting a little into each bottle?—Yes, sir.

Cross-examined by Mr. Line: Is your master always present?—Nearly always. Once or twice I have put it in without him, but then he has given me the soda to put in.

Do you ever miss any bottles?—No, sir.

Never have in your life?—No, sir.

Re-examined by Mr. Glaisyer: You say once or twice you have put the soda into the bottles in the absence of the defendant?—Yes, sir.

Where was the defendant on these particular occasions?—In the shop, from which he could see me through a glass door.

Professor Attfield, called, sworn, and examined by Mr. Glaisyer, said he was professor of practical chemistry to the Pharmaceutical Society, author of a manual of chemistry, member of the Council of the Institute of Chemistry, and till lately member of the Council of the Chemical Society.

What in your opinion is soda water?—There are two kinds of soda water in trade now. There used to be three. First, medicinal soda water, and the present official strength of that is 15 grains of bicarbonate of soda to the bottle of half a pint, and it was this medicinal soda water that gave the name to the article. This medicinal soda water always contained carbonic acid gas, and was aerated soda water. This aerated soda water created a demand on the part of the public for "soda water" that had no "soda" in it; created a demand for aerated water, in fact. Created a demand for aerated water which the public always continued persistently to call soda water. To meet this demand for a beverage manufacturers used commonly to make soda water, so called by the public, without any soda in it, but some manufacturers put a dash of soda in it to warrant the name. But since prosecutions have been instituted about soda water nearly all, practically all, manufacturers put at least this dash of soda in it, just to warrant the name, and I may say to meet the requirements of officials under the Act.

Can you say anything as to the quantity of soda to meet this?—That varies very much.

By the Bench: Say how much?—It varies from a fraction of a grain to three or four grains per bottle. This is according to my experience as an analyst, and the reason of its varying is, in my opinion, because the boys and the work-people put the soda in, as has been described in this case, rapidly instead of with care. And it is important for commercial purposes that it should be done rapidly, in which case it is impossible for such boys to be very accurate as to the amount employed, that is to say, in the cases of those makers who adopt this rough-and-ready mode of adding the soda.

Mr. Glaisyer: Have you had an official sample?—I have. This is the label of the sample which I received on October 3 and it corresponds with that of the sample produced.

By the Bench: Then you have analysed one of the sealed samples?—Yes.

Mr. Glaisyer: Tell us the result of your analysis.—I found bicarbonate of soda in that bottle.

And what would you term the liquid you analysed?—There being soda there, it was of course soda water. There was enough soda to warrant the name.

By the Bench: Soda in what quantity?—It was about a quarter of a grain per bottle.

By the Bench: Was it added or was it in the water used?—I can only say from my knowledge of the waters in this district, which I believe to be mainly sandstone waters, that—

By the Bench: Some water here comes from limestone; many natural waters would contain soda in the quantity you have found, I take it?—Some waters would contain that quantity, others contain traces only, and others really none at all; and as such waters are supplied to this district contain, practically, none at all, therefore, in my opinion, this quarter of a grain of soda I found was added carbonate of soda.

Mr. Glaisyer: Did you examine the bottle in which the water was sent to you?—Yes.

Now how do you account for the small quantity of soda found in that bottle of water?—On account of the rapidity of the manipulation of work by the boy in putting the soda into the bottles, I should certainly expect the quantity to vary from, say, a $\frac{1}{4}$ of a grain to 3 or 4 grains. I have seen this work done by boys, and I am certain the amount of soda must almost necessarily vary in the bottles.

Is it also possible for a portion of soda to be forced out after being put into the neck of the bottle?—That question I have gone into, and have made experiments myself in bottling soda water from a machine. The soda dropped into one of these patent bottles falls on the glass ball—sometimes partly and sometimes mainly; and then, when the water charged with gas is driven by the machine into the bottle, air and gas escape from the neck of the bottle, and with that air nearly always comes out some spray, and with that spray might come a certain amount of the soda.

Did you make a further analysis of anything that came

with the sample?—Yes. When I proceeded to open my sample I found it extremely difficult to get out the whole of the wax with which the bottle was sealed. I knew as a chemist that even if a fiftieth part of a grain of the colouring matter of the wax got into the bottle it might contaminate the water; and, although I took especial care, I found it impossible to get all the wax out. The fact of the pressure of the glass ball acting on the centre of the indiarubber ring in the neck of the bottle caused the inner edge of that ring to curl up, and I found it utterly impossible to get all the wax from beneath, although I myself tried with a pen-knife, but I found I could not do so. I then pressed down the ball and got out the liquid, and found lead therein. I immediately examined the particles of wax for lead, and there found lead in considerable quantity.

By the Chairman of the Bench: Do you think the lead would get there from the lead generator?—I have examined many samples of soda water, the gas for which was made in a leaden generator. Some contained lead, others no lead. I have sometimes found that lead does come from the pipes; at other times I have been sure it could not have come from that source. Very minute traces of lead *might* come over with the gas, notwithstanding one or two washings of the gas. I am of opinion that it is just possible for lead to be present from that cause.

Mr. Glaisyer: Could any other substance be used instead of lead for the generator of the gas?—Makers of soda-water apparatus are turning their attention to that subject now, but up to a short time ago lead has been almost universally used.

Do you consider the lead in this sample innocuous?—Perfectly; such a minute quantity must be.

Cross-examined by Mr. Line: You say a large quantity of the soda-water you have examined contained only small quantities of soda?—Yes.

In your experience, putting a small quantity of soda in the bottles on a knife, would not some of them contain no soda at all?—I don't understand your question.

Taking two dozen bottles, in the bulk of the cases would it not be the case that no soda would find its way into the bottles?—In the bulk of the cases some quantity would find its way into the bottles.

Would the small quantity of soda added have any effect at all?—Practically it would not.

Then it is put in to evade the Act?—It is put in to make it the so-called "soda water" of commerce; it is the fault of the public that this term is kept up. It is put in properly to evade prosecution in a police court, it is put in to meet the requirements of officials under the Act. There is no question of cost in the matter.

Do people go into chemists' shops to buy aerated waters?—Oh, yes.

And they would call it soda water?—I don't understand you. They go in to buy many varieties of aerated waters. Not 5 per cent. of the people know or care what they get, so far as any so-called soda in the so-called soda water is concerned, nor is it necessary that they should care. It is a mere question of name. The contentions in these soda water cases are mere contentions about a name.

Don't people who go to a chemist's shop expect to get some soda in their water?—If it is well charged with gas it is all they require.

Then for the requirements of the public it is necessary that some soda should be put in. In this case you say there was only a quarter of a grain?—Yes.

You cannot swear that that quarter of a grain of soda was added?—No, I cannot actually swear that.

Have you ever analysed the water of Newport?—No.

If I tell you as a matter of fact there is soda in the water would it not make it still more difficult for you to say there was soda added?—I could not in that case possibly say, nor could any one else without quantitative analyses.

Chairman of the Bench: If the soda be there, it must be taken as added.

Mr. Fox: Are you a public analyst?—Yes, and have been for 25 years, but not under the Act. I have always refused appointments of that kind.

Mr. W. W. Stoddart, called, sworn, and examined by Mr. Glaisyer, said he was public analyst for the city of Bristol, and that he held the same titles as Mr. Thomas, viz., Fellow of the Institute of Chemistry, and Fellow of the Chemical Society.

Have you had a sample of this water sent to you for analysis bearing the official seal of the borough?—Yes.

What was the result of your analysis?—I found 1 and 1-10 grain of bicarbonate of soda in it.

Have you examined samples of Newport water?—Three.

What was the result?—In one I found total solids about 8 grains to the gallon, in another about 13 grains to the gallon, and in the third about 14 grains to the gallon.

What about soda?—No soda occurs in this water.

None of the three samples contained soda, then?—There is no soda in Newport water: I know that for certain.

Then if a quarter of a grain is found there it must be added?—Certainly.

Chairman of the Bench: There is a new reservoir made from which we get a great deal of water from the limestone?—Yes, producing about 14 grains to the gallon: that water contains no soda, and that is the new water.

Mr. Glaisyer: Then all the samples from Newport, including the new water supply, contained no soda?—None.

Then with regard to the trace of lead?—I found a small trace of lead.

How do you account for it?—I think it comes from the generator in which the gas is made—comes over with the gas.

Would one-twentieth part of a grain of lead be serious? Certainly not.

Do you know an authority named Wanklyn?—I do. He says a tenth of a grain of lead to the gallon would be innocuous.

Cross-examined by Mr. Line: When did you last examine water from Newport?—Last year.

It was not sent you by the Corporation?—No.

Was it from the new supply?—Yes.

Mr. Line, addressing the Bench: I would call your attention to the second section of the Act. "The term 'food' shall include every article used for food or drink by man, other than drugs or water." Soda water is neither a drug nor is it water, and therefore it is an article of food.

Mr. Glaisyer: I admit that.

Mr. Line: My point is this, that a person going into a chemists' shop—

Mr. Fox: I may say I have all my soda water from Mr. Young, a chemist, in quantities of six dozen at a time. I would not drink soda water if I knew it contained any soda.

Mr. Line: I submit that a large number of persons going into a chemist's shop for soda water would expect to get water containing soda.

Chairman of the Bench: The defence have proved that this water did contain soda.

Mr. Glaisyer: I admit that it is a food, and that ends that point, then.

Mr. Line: I go still further.

Mr. Glaisyer: I must protest against this.

Mr. Line: I am arguing a question of law.

Mr. Glaisyer: What question of law?

Mr. Fox: It is admitted on all hands this should have soda in it: is that so or not?

Mr. Line: I say, sir, the Legislature never intended that the Act should be evaded by such a small quantity as a $\frac{1}{4}$ grain of soda being added to each bottle on the point of a knife.

Chairman of the Bench: When this Act was passed it was intended to apply to stronger drinks than soda water.

Mr. Line: If $\frac{1}{4}$ grain only was in the water it is nothing substantial, nothing material.

By the Bench: The defence have proved there is something material in the water.

Chairman of the Bench: I have drunk soda water for many years, and I must say if I thought there was any quantity of soda in it I should never have drunk it.

Mr. Line: It is ridiculous to argue that you can make soda water by putting $\frac{1}{4}$ grain of soda into the water, or that the water contains it as a natural constituent.

Mr. Fox: It makes no difference whether the soda be added, or whether it be present as a natural constituent of the water. In either case it will be soda water.

Mr. Line: Take the case of a member of the general public suffering from gout or rheumatism: he asks for soda water and expects to get some soda in it.

Chairman of the Bench: Then let him ask for medicinal soda water.

The magistrates conferred.

Chairman of the Bench: We think this soda water was the ordinary soda water of commerce, and we shall not inflict any penalty; in fact, we dismiss the summons.

Mr. Glaisyer: Do you award costs?

By the Bench: This action was taken on public grounds; they are a public body who are prosecuting. No costs will be awarded.

Chairman of the Bench (addressing Mr. Line): Do you propose proceeding with the other two cases?

Mr. Line: No, sir. This case will govern the others, as the charge is the same in each instance.

EXTRAORDINARY CHARGE OF ASSAULT.

At the Enfield Petty Sessions on September 12, an extraordinary charge of assault was heard. The plaintiff was Mr. George Henry Nutt, of 12 Paddington Green, who is employed as a chemist at 16 Coleman Street, London, and the defendant was George Bennett Garlicke, M.D., medical officer of health for Cheshunt, in which district he holds several appointments, including that of churchwarden.—Mr. Willey Wright appeared for the complainant, and Mr. Harper defended.—The complainant stated that in March, 1878, he was a hotel-keeper at Chelmsford. A young woman, Miss Margaret Isabella Bickley, entered his service as barmaid. His wife died, and an intimacy sprang up between himself and Miss Bickley. They gave up the hotel, and went to reside together at Kingsland, and subsequently at Gough Terrace, Freezywater, Waltham Cross. While there Dr. Garlicke, the defendant, was called in to attend Miss Bickley professionally. The complainant alleges that Dr. Garlicke, as well as himself, became fascinated by Miss Bickley, and that he wrote her a letter commencing "My darling little sweetheart." He says, however, that Miss Bickley's influence with him afterwards induced him to give up the compromising letter and sign an apology to the doctor and a retraction of the accusation. Notwithstanding the apology (so says the plaintiff) Dr. Garlicke came to his house and said, "You tried to ruin my reputation, and now I'll ruin yours." He also said, "You have tried to ruin this woman; you have taken her jewellery away and pawned it, and I have the checks; you have appropriated the money to your own use, and I intend to prosecute you at the Mansion House." Complainant said, "Let me leave the room: I have heard all I want to hear," whereupon the defendant replied, "No, you must sign this paper first," at the same time producing a document. Mr. Nutt said he would not sign anything, and the doctor and his companion then seized him, beat him very violently, kicked him about the legs and body, and nearly throttled him. After some time Mr. Nutt called upon them not to murder him, and said he would sign anything they pleased. The man produced a document, which was stated to contain a full retraction of all scandal circulated, and complainant signed it. The doctor then went to Miss Bickley's room and washed his face, which was bleeding.—The complainant now asserts that his original accusations were true. It was true that he had pawned all Miss Bickley's jewels, but he had given her all the proceeds, and had not appropriated a penny. He denied that he had attempted to extort money from Dr. Garlicke.—For the defence, it was stated that the complainant was the first to commit an assault, and, placing a corkscrew between his fingers, rushed in the doctor and inflicted two punctured wounds on the face.—Witnesses were called to support this view of the case, including Miss Bickley.—Dr. Garlicke was committed for trial, but was admitted to bail, himself in 100*l.*, and two sureties in 50*l.* each.

ICE CREAM AND BEEF JUICE.—As an excellent dietary article, this is praised by Dr. J. J. Tucker in the *Chicago Journal*. His formula is—Cream, 120 grammes; sugar, 30 grammes; extract of vanilla, 8 grammes; beef juice, 8 grammes. Any confectioner can make it, or it may readily be prepared at home with a freezer. Its uses are obvious. Dr. Tucker would be physician on our establishment if we lived in Chicago.]

Bankruptcies and Liquidations.

BOUCK & Co., Chemical Manufacturers.

THE final meeting of the creditors of Bouck & Co. (Limited), chemical manufacturers, Newton Heath, was held on September 28, at the Mitre Hotel, Manchester. Mr. E. M. Dixon (Messrs. Dixon, Son & Evans) presided. An offer by Messrs. Hardman for the purchase of the works for 9,000*l.* was accepted. Mr. E. Adamson, the liquidator, stated that it was anticipated the creditors would be paid 13*s.* in the pound.

WILLIAM HILTON.

THE first meeting of the creditors under the bankruptcy of William Hilton, of Whitefield, near Manchester, wholesale druggist, was held on October 9 at the County Court, Bolton. Mr. A. H. Lamb, Princess Street, Manchester, accountant, was appointed trustee, with a committee of inspection. The principal creditors were represented by Messrs. Ritson & Grundy, solicitors, Manchester.

WILLIAM LUCAS, Salford.

A PETITION for liquidation has been filed in the Salford County Court by Mr. R. G. Lawson, solicitor, Peter Street, on behalf of William Lucas, Broughton Road, Salford, wholesale and retail druggist. The liabilities are estimated at 2,345*l.*, but it is expected that the estate will realise favourably. Mr. James Boardman, accountant, Pall Mall, has been appointed by the Court receiver and manager of the property of the debtor.

A. MANERÉ, Brewers' Chemist, Goulstone Street, Whitechapel.

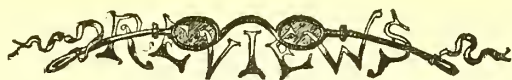
THE first meeting under this bankruptcy was held on the 8th inst., before Mr. Registrar Hazlitt. A statement of the bankrupt's affairs was rendered, disclosing unsecured debts, 2,629*l.* 10*s.*; debts fully secured, 5,900*l.* (securities valued at 27,000*l.*); and debts partly secured, 400*l.* *Assets*.—Surplus from property held as security valued at 21,100*l.* The following were the principal unsecured creditors:—

	£	s.	d.
The Animal Charcoal Company, Shadwell	26	0	0
Amor & Sons, Whitechapel	23	0	0
Burbridge, T., Penge	64	0	0
Benson, H., Booth Street, Spitalfields	56	0	0
Cope, W., 10 Bostock Street, E.	20	0	0
Dennis, T. R., Corn Exchange Chambers, E.C. ..	142	0	0
Fitch, C., Lord Mayor's Court	68	0	0
Fitch, J., Lord Mayor's Court	25	0	0
Fearon, F., 25 Parliament Street	400	0	0
Lee, Samuel, Stratford	220	0	0
Leroy & Co., 12 Gray Street, E.	80	0	0
Leroy, F., Tredegar Road, Bow	250	0	0
Leatham, W. H., Hensworth Hall, Yorkshire ..	125	0	0
Lloyd, T., Leadenhall Market	40	0	0
Lessware, H., Great Alie Street, E. (disputed) ..	63	0	0
Milne, G. (Brown, Johnson & Co.)	25	0	0
Pearson, E., The Grove, Southwark	47	0	0
Simpson, W., Sydenham	30	0	0
Tilley, Alfred	170	0	0
Taft & Co., Size Lane, E.C.	19	0	0
Walker, Archibald, & Co., Liverpool	550	0	0
Womersley & Son, Whitechapel	16	0	0

Creditors holding security.

Leinbez, Victor, Grove Road, Bow	400	0	0
Wedgwood, H., Queen Anne Street, W... ..	5,300	0	0

Several proofs were admitted, and the creditors appointed Mr. W. Williams, accountant, 13 King Street, Cheapside, as trustee, with a committee of inspection, consisting of Mr. C. Fitch, Serjeant-at-Mace, Lord Mayor's Court; and Mr. E. Sparrow, of 5 Cleveland Road, Barnes. November 21 was the date fixed for the next meeting.



AND

Literary Notes.

THE *American Chemist* has been discontinued.

MESSRS. MACMILLAN & Co. announce that they will shortly publish a new and thoroughly revised edition of Messrs. Flückiger & Hanbury's *Pharmacographia*.

THE *Bazaar, Exchange and Mart*, the journal which originated the idea which has been carried out within pharmaceutical limits in our Exchange Column, is about to be issued three times a week. It was started as a weekly journal in 1868, and for the last five years has appeared twice a week. Some of its single issues have contained as many as 5,000 distinct advertisements.

TABULAR ANALYSIS.—An interesting and valuable paper on "Tabular Analysis," by Dr. William A. Guy, is printed in the current number of the "Journal of the Statistical Society." The paper describes an exceedingly useful method of comparing phenomena in which several of the circumstances are variable; and illustrations are given of the application of tabular analysis to such complex phenomena as cases of poisoning by arsenic, the symptoms experienced by workers in emerald green, &c. The paper itself is as concise as it can well be made; indeed, more extended illustration would not have been thrown away on most readers. Such being the case, our account would be obscure if we endeavoured to reduce it within the limits we can afford. All original workers, however, will find it worth while to study the system and to practise it frequently.

Medical Gleanings.

VIVISECTION.—The German Medical Congress at Eisenach has declared vivisection necessary in the interests of science in general and of medicine in particular.

MALT EXTRACT IN GONORRHOEA.—Dr. Cowling, in the *Louisville Medical News*, recommends malt extract in gonorrhoea. He argues against the starvation and nauseous drug system, saying that if the inflammation gets a fair hold it must be increased to the maximum.

COMPOUND TINCTURE OF BENZOIN FOR TOOTHACHE.—Dr. T. C. Osborn, in the *New York Medical Brief*, records a number of cases where immediate and permanent relief from toothache was obtained by the application of cotton wool soaked with compound tincture of benzoine.

BENZOATE OF SODA IN TUBERCULOSIS.—The German papers announce that Professor von Rokitsansky, of Innsbruck, has discovered that benzoate of soda is a sovereign remedy in tuberculosis. His observations on human sufferers were suggested by some remarkable results reported by Dr. Max Schüller on animals at Greifswald.

AMMONIACAL SULPHATE OF COPPER IN TICDOLOUREUX.—Dr. Fereol has reported to the Académie de Médecine (Paris) several cases of long-standing neuralgia cured by ammoniacal sulphate of copper. The formula he prescribes is:—Water, 3½ oz.; syrup orange flowers, ½ oz.; ammoniacal sulphate of copper, 1½ to 2 grains; the whole to be taken in the course of 24 hours, with meals.

MEZEREON BERRIES.—The *Globe* says, "An inquest was recently held on two children, who were poisoned by eating the berries of the mezereon."

POISONED BY ESSENCE OF ALMONDS.—On September 17, at Higher Broughton, near Manchester, the wife of Mr. Lyons, principal of the Broughton High School, mixed what she believed to be a draught of essence of almonds and water and drank it. A bottle of the essence was usually kept in the pantry for flavouring confectionery. Death rapidly supervened, the symptoms being such as are produced by prussic acid.

TOBACCO POISONING.—A lad, George Soutar, about 15, Dundee, died on September 14 from the effects of tobacco poisoning. While chewing tobacco he accidentally swallowed a piece, and soon after was seized with vomiting and convulsions. Drs. Miller and Pirie were sent for, and applied the stomach-pump, extracting a quantity of tobacco-juice. Restoratives were also applied, but, notwithstanding these efforts, he died the same night in great suffering.

Two days later died Mrs. Margaret Robertson, or Duncan, believed to be the oldest woman in Scotland. On February 2 last she is said to have been 107 years of age. She was born at Balruddion, Glenshee, in the year 1773, and had lived under the reign of four British Sovereigns. She was very fond of a smoke, and up to the last enjoyed her clay pipe with the greatest zest. When spoken to of the injurious effect of tobacco, her invariable answer was, "I've smoked a' my days. It's ha'en plenty time to dae me ill, and it's never socht."

A HORSE POISONED BY TEA.—It has been stated that in the recent Zulu campaign, Lord William Berosford had a horse poisoned by tea, given to it dry, by mistake, with fodder. It was eaten greedily, and produced the most startling effect. The animal plunged and kicked and ran backwards, at intervals galloping madly around, and finally fell into a donga, where it lay dashing its head on the rocks, and was despatched by an assegai-thrust through the heart. The post-mortem appearances indicated "extreme cerebral congestion."

HOOPING COUGH MIXTURE.—A writer in the *Western Lancet* (San Francisco) gives the following as a successful formula:—

Codæa	gr. ss.
Potas bromidi	3j.
Potas iodidi	3j.
Chlorali hydratis	3j.
Syr. tolutani	3ii.
Ext. glycyrrhizæ fl.	3ss.
Syr. ipecac.	3j.

Mix. Sig. ½ to 1 teaspoonful in water after each paroxysm.

ANTIFAT; FUCUS VESICULOSUS.—Under the heading "Antifat," considerable discussion has been going on in the *British Medical Journal* on the efficacy of the *Fucus vesiculosus*. A physician in the North of Ireland writes that he has just visited a sty where the pigs are being fattened on the bladder wrack. Dr. William White, of Manchester, records two cases in which the *Fucus* was taken for five weeks. In the former case the patient gained 6 lbs., in the other there was no alteration in weight. Dr. Murrell, of Weymouth Street, W., published a graphic letter from a patient who took pills of *Fucus vesiculosus* for eight days, in all less than 100 grains. His weight fluctuated from 15 st. 6½ lb. to 15 st. 5½ lb. in such a way that it seems unlikely that the pills influenced it. Still they produced excessive diuresis, foul perspiration, and fetid breath, so that it seemed, to use a vulgar expression, to be making the "patient as rotten as a pear." These are too few cases to decide from, but it cannot be positively said that the presumption is in favour of the theory so widely published by the Botanic Medicine Company.

GELSEMIUM IN GONORRHOEA.—In the *Western Lancet*, Dr. J. Sullivan extols gelsemium as an unfailing remedy in the early stage of acute gonorrhoea. The fluid extract should be given four times a day, after meals and at bedtime, beginning with six or eight drops and increasing two drops every dose up to twenty drops, or until the patient experiences the peculiar intoxication, when it should be continued in smaller doses, as much as can be easily tolerated, for a few days, or till the discharge becomes lighter and disappears. An eighth of a grain of morphia is sometimes advantageously added to each dose. Saline purgatives, rest and abstinence, are essential parts of the treatment. After the acute stage has passed, copaiba and the oil of sandal wood will soon complete the cure.

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CAUSES OF INSANITY.—A recent consular report states that since the opening of the Pennsylvania Hospital for the Insane, 7,867 patients have been admitted, and a table is appended, which gives an analysis of the alleged causes of the disease. The causes of more than 3,000 are unascertained, but metaphysics, tight-lacing, and lead poisoning are each made responsible for one, the use of quack medicines for four, the use of tobacco for 17, and of opium for 30 cases. Want of employment is said to have unhinged 49 minds, and intense application to business 77, to which should be added 52 cases caused by intense study, 2 by stock speculations, and probably a large proportion of 486 cases caused by mental anxiety. There are several other odd causes enumerated, which almost excite a smile, such as: "mortified pride" (3), "anxiety for health" (3), and "engagement in duel" (1).

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A SURGEON'S PERQUISITES.—A somewhat embarrassing legal question has arisen at Washington. A surgeon, who had amputated both the legs of a patient, claimed them "as his perquisites," placed them in spirits, and exhibited them in the local museum, in a jar labelled with the name of the original owner. The latter, objecting to this publicity, brought an action for the recovery of the legs. No decision appears to have yet been arrived at, but the authorities of the museum are naturally somewhat anxious as to the result of the case, inasmuch as, if the plaintiff succeeds, various other limbless individuals are likely to follow his example, and so the museum may, in course of time, be robbed of much of its scientific value and personal interest. We hesitate to give an opinion on a point of so much difficulty, but we may suggest that the museum authorities should take their stand upon the principle that the legs, when severed, become dead; and that at common law there is no property in a dead human body (3 Co. Inst. 203).—*Solicitors' Journal*.

Foreign Items.

LIQUORICE.—Eleven thousand cases of 2 cwt. each were produced in 1878 by the Calabrian manufactories.

MANNA.—The exports of manna from Palermo in the years 1875, 1876, and 1877, respectively, were valued at 12,432*l.*, 22,080*l.*, and 26,160*l.*

INSECT POWDER.—2,730 poods of insect powder, valued at 7,284*l.*, were exported from the port of Poti, Russia, during the years 1877–78.

MINERAL WATERS.—52,085 gallons of mineral waters were exported from Stettin, Germany, in 1878; 1,230 gallons came to Great Britain. In 1877 the total export was 48,655 gallons.

DAMAR.—14,361 piculs of damar were exported from Java in the year ending June 30, 1878, against 12,052 in the year 1876–77. More than 8,000 piculs went to Holland, nearly 4,000 to Singapore, and about 1,000 piculs to France.

THE CHEMICAL TRADE IN GERMANY.—The Chemical Works, Pommerensdorf, Stettin, a joint-stock company, paid an average dividend of 26¼ per cent. during the ten years ending with 1877. In that year and in 1878 the dividend amounted to 16 per cent. on the capital.

CINCHONA OFFICINALIS is flourishing in Ceylon at 6,000 feet above the sea level.

NITRATE OF SODA.—Advices from Valparaiso, dated September 8, state that the Chilean Chambers have imposed an export duty of 40 centavos per cubic metre upon nitrate of soda, exclusive of that made south of the 24th degree of latitude, which is exempted for two years.

QUASSIA.—Among the exports from Surinam enumerated in a recent consular report, quassia wood occurs to the extent of 48,118 kilogrammes exported in 1877, and none in 1878. This is the wood of the *Quassia amara*, or, Bitter wood of Surinam, described in the Pharmacographia, page 119.

SPEARM OIL is now obtained to a considerable extent in the Bay of Panama. In 1877, 727 barrels (31 gallons in each) of oil were obtained, and 2,710 barrels in 1878. The trade is carried on by American vessels from San Francisco and New Bedford, and Chilean vessels owned by English firms at Valparaiso.

GLUCOSE.—There is a considerable and apparently increasing trade in glucose between France and England. From the port of Dunkirk alone in 1877 2,672,835 kilogrammes were sent to England, and in 1878 the quantity increased to 6,705,642 kilogrammes. This is chiefly consumed in brewing beer and spirits.

THE CHINESE IN CALIFORNIA.—The Chinese Consulate-General recently established in San Francisco has informed the British Consul that there are 300 Chinese doctors in the capital of California, and this estimate is considered too small. In 1878 more than \$40,000 worth of drugs and dyes, \$33,000 worth of chemicals, and nearly \$700,000 worth of opium were imported from China into San Francisco.

PORPOISE OIL is beginning to form an article of export from Trebizond, in Asia Minor. The inhabitants of Surmeneh are the chief porpoise-fishers. They lay nets some miles from the shore, and allow them to remain for two or three weeks. They often make capital hauls. The porpoises are also shot by expert marksmen. As much as 300 lbs. of oil is occasionally obtained from a single specimen, and, in spite of its strong smell, it was generally used for lamps before the introduction of petroleum. It is now being gradually superseded by the latter.

A PHARMACIEN MURDERED AT PARIS.—M. Lagrange, a chemist in the Place Beauvau, Faubourg St. Honoré, and his servant maid were murdered on the night of October 5. His shopman opened the shop as usual the next morning; but, surprised at his master not appearing, he spoke to the neighbours, who recommended a search of the private rooms. It was at first supposed that he might have gone to join his wife in the country; but a cash-box forced open aroused suspicion, and the two bodies were found in the cellar. It is believed that the crime was committed just after the closing of the shop at 11 at night, a heavy iron pestle used in the laboratory being the weapon used. Several rooms bore marks of blood. M. Lagrange was about 30 years of age and his servant 20. A Swiss named Arnold Walder, 26 years of age, who had been employed as assistant for five or six months, was missing, and on him, of course, serious suspicion fell. A letter from him afterwards received by the widow admits the murder and robbery of 2,000*fr.*, which he says he will pay back when he is in a position to do so. He has been traced to Antwerp, and it is believed that he has embarked for America.

THE CONSUMPTION OF QUININE IN AMERICA.—The *New York Oil, Paint, and Drug Reporter* states that last year (1878), as near as can be estimated, there was a consumption in the United States of about 1,100,000 oz. of quinia and cinchonidia, in the proportions of about 800,000 oz. of the former to 300,000 oz. of the latter. This year the consumption will be fully 1,000,000 oz., but in the relative proportions of 600,000 and 400,000, and it is even estimated by competent druggists that the proportions will be equal. The diminution in the consumption of quinine has been due largely to the fact that the country has had no serious epidemic, though it has been supplanted, to some extent, by cinchonidia. The increased consumption of the latter, however, and hence the large consumption of the two alkaloids

combined, may be traced to the popular favour in which cinchonidia is held in the West by reason of its efficiency and cheapness.

NEW GERMAN TARIFF.—The following are the provisions of the New German Tariff as far as they affect the drug trade:—

	Per 100 kilograms.	Marks
a. Ethers of all kinds, chloroform, collodion, ethereal oils, except those enumerated under c and i, essences, extracts, tinctures, waters containing alcohol or ether for trade or medicinal use, all varnishes except oil varnish, painters' colours, inks, China ink, pencils and crayons for drawing	20	
Tares: Barrels and chests, 16 per cent.; frails, 9 per cent.; bales, 6 per cent.		
b. Oil of juniper and of rosmary	12	
Tares: Chests, 16; frails, 9; bales, 6 per cent.		
c. Oxalic acid and oxalate of potash, yellow and red prussiate of potash and cyanide of potash	8	
Tares: Not yet determined.		
e. Alnm, printing ink, chloride of lime, dyewood extracts, gelatine, glue, lampblack, shoe-blackening, sealing-wax, ink and ink-powder, waggon-grease, combustibles	3	
f. Soda, calcined, bicarb. of soda	2.50	
g. Soda: raw, natural, or artificial; crystallised soda; potash ..	1.50	
h. Soluble silicate of potash	1	
i. All raw products for medicinal or industrial use, especially drugs, chemicals, and dyestuffs, not otherwise enumerated under a to h, and under other numbers of this Tariff—benzene and tar oils of similar nature, oil of turpentine or resin, animal oil, mineral waters, artificial or natural, including bottles or jars; wafers, vegetable jellies, gunpowder, yeast, dry or paste	free	

Personalities.

MR. J. E. MOORE, of Bath, has purchased, through the agency of Mr. Brett, of Leicester, the business of Mr. W. B. Blades, of 6 Carlton Place, Clifton, Bristol.

MR. SALTER, brush manufacturer, of Red Lion Square, has taken into partnership Mr. F. S. Stark, a gentleman well known in the trade, and formerly with some of the leading city houses.

MR. BRETT, of Leicester, purchased at the end of last year of the trustees of the estate, the business of Mr. Graves, of Stansted, Essex, and has resold it to Mr. H. Huggins, of Exeter.

MR. EDWARD MONTAGUE NELSON, of Nelson, Dale & Co., has become a candidate for election to Parliament in the Conservative interest for Warwick, where the gelatine works of the firm are situated.

ON SEPTEMBER 12 the first brick of the Holloway College for Women, Egham, was laid by Mr. George Martin, brother-in-law of the founder. The site of the building has cost 25,000*l.*, and the contractor engages to finish the work in four years.

MR. JAMES GEORGE FRAZER, of Glasgow, a son of the well-known pharmacist of that city, was on the 8th inst. elected to a fellowship of Trinity College, Cambridge. Mr. Frazer was M.A. of Glasgow University, and B.A., of Cambridge University. Last year he came out second in the Cambridge Classical Tripos.

AT THE SESSIONS for the revision of voters for the City of London, a claim was made by Mr. Hughes, in the Conservative interest, in the case of Mr. Frank Harwood Lescher, whose name had been left out by the overseer, for the occupation of a warehouse in St. Bartholomew Close. It appears that in the latter part of last year the warehouse was almost pulled down, and it was contended that there could not have been continuous occupation in consequence. A witness was called on behalf of Mr. Lescher, who stated that some rooms had not been pulled down, as a portion of the stock had been kept upon the premises. The Revising Barrister held that the occupation had been continuous, and allowed the claim.

TESTIMONIAL TO MR. PEDLER.—An interesting ceremony was performed at the Vestry of St. Dunstan's, Fleet Street,

on September 29, the occasion being the presentation, by the parishioners of St. Dunstan, of a handsome testimonial in the shape of a silver tea service to Mr. George Stanbury Pedler, on his retirement from business as a chemist, which he has carried on in Fleet Street for about 40 years. Mr. Pedler has earned for himself not only in his parish, but for many years as a common councilman of the City of London, the enviable character of a true philanthropist. He has done good service as chairman of the Sewers Committee, and the City of London is indebted to him for the energy and scientific knowledge which he brought to bear upon the improvement of the sanitary condition of the City. Amongst the speakers who bore testimony to his private worth and public exertions were the venerable rector of the parish, the Rev. E. Auriol, who, though in feeble health, had made a great effort to be present, for the purpose of showing his esteem and warm friendship for his old parishioner. Mr. R. B. Seeley, also, who may now be regarded, with perhaps one exception, as the father of the present race of publishers, and who could boast with justifiable pride of his 70 years' connection with the parish of St. Dunstan, described in very warm terms the regard he felt for Mr. Pedler, from whom, as for some time past a non-resident, he had always been able to obtain the most reliable information on all matters connected with the parish. Mr. H. Praed, M.P., Mr. H. G. Hoare, Mr. C. Hoare, Mr. Alderman Figgins, Mr. Deputy Walter, Mr. Newton, Mr. Attenborough, and other speakers also testified to Mr. Pedler's uniform courtesy, kindness, private charity, vigour, and intelligence.

Obituary.

Notice has been received of the death of the following:—

BARNETT.—On August 16, Mr. Joseph Barnett, chemist and druggist, New Street, Burton-on-Trent. Aged 35 years.

BARTLETT.—On August 15, at Chelsea, Mr. William Bartlett. Aged 75 years. Mr. Bartlett was a Member of the Pharmaceutical Council in the years 1845-47.

BLAYMIRE.—On October 7, Mr. Thomas Croskell Blaymire, chemist and druggist, St. Ann's Square, Manchester. Aged 25 years.

DALLAS.—On August 22, Mr. Clement Dallas, chemist and druggist, Lavender Hill, Clapham, S.W. Aged 42 years.

HATCHER.—The death is announced, at the age of 58, of Mr. William Henry Hatcher, late sub-manager of Price's Patent Candle Company (Limited). The father of the deceased placed him in the school of King's College, London, from which he matriculated into the College in the department of applied sciences, and became the favourite pupil of such distinguished professors as Daniell in chemistry, Moseley in physics, Cowper in construction, Wheatstone in experimental science, &c. When Price's Candle Company was founded, one of the directors being an old King's College man, Hatcher was appointed chemist to one of the works in the Old Kent Road; afterwards to the more extensive works at Bromboro' Pool, near Birkenhead; and lastly to the company's most extensive works at Battersea, where he died, after suffering during some months from a painful internal disorder.

HOLIDAY.—On September 1, Mr. James Holiday, chemist and druggist, St. Dunstan's Street, Canterbury. Aged 76 years.

JACKSON.—On August 30, Mr. John Jackson, chemist and druggist, Northampton Street, Leicester. Aged 73 years.

MOHR.—The death is announced of Professor Mohr, of Bonn University, aged 72. Like his father, he was originally an apothecary at Coblenz. In 1864 he was attached to Bonn University, and some of his works on chemistry, geology, and physics have been translated into foreign languages. His activity was inexhaustible, and on his death-bed he dictated scientific treatises. He was the designer of the well-known Mohr's burette.

NEGRETTE.—Mr. Henry Negretti died during September of lung disease at Cricklewood, at the age of 62 years. He was born in Como, and came to this country in 1830, when he was 12 years old. He was knighted by the late King Victor Emmanuel in recognition of his services in securing the release of the Italian Pelizzoni, falsely condemned on the evidence of the police for a murder on Saffron Hill. When Garibaldi visited London in 1854, amid numerous invitations the hero accepted the hospitality of Mr. Negretti alone. He was the warm friend of his countrymen in London, by whom he was greatly beloved, and his loss will be felt by many a charitable institution no less than by those scientific circles of which he was an ornament.

NICHOLSON.—On September 6, Mr. John Joseph Nicholson, pharmaceutical chemist, High Street West, Sunderland. Aged 42 years.

PASS.—On August 31, Mr. Thomas Pass, chemist and druggist, Melbourne. Aged 72 years.

PEARCE.—On August 22, Mr. Joseph Pearce, chemist and druggist, Sheep Market Street, Crewkerne. Aged 67 years.

ROWLAND.—On August 10, Mr. William Rowland, chemist and druggist, East Street, Chichester.

RUSHWORTH.—On August 22, Mr. Thomas Rushworth, chemist and druggist, Wellington Street, Leeds. Aged 33 years.

THIRLBY.—On October 3, at Shanghai, China, of cholera, Mr. William Arthur Thirlby, pharmaceutical chemist, formerly of Ashby-de-la-Zouch. Aged 27 years.

WILTON.—On September 13, Mr. Richard Flower Ellis Wilton, chemist and druggist, Bridgewater. Aged 33 years.

Trade Notes.

MESSRS. INGRAM & ROYLE have just opened a branch establishment for the sale of foreign mineral waters at Bath bridge, Bristol, to meet the requirements of their trade in the West of England.

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MESSRS. BARNETT, SON & FOSTER have published a new catalogue of soda-water machinery and accessories, containing descriptions and illustrations of everything likely to be required in the aerated water trade. The price of the catalogue is 1s.

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MESSRS. READE BROTHERS, late of Wolverhampton, varnish manufacturers, have removed their works and offices to Birmingham, in consequence of the rapid growth of their business. Their present address is "Tower Varnish Works, Long Acre, Nechells, Birmingham."

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ALMANACKS FOR 1879.—We are again reminded of the right of time by the appearance on our office table of the almanacks for the coming year. Mr. H. Silverlock, of 92 Blackfriars Road, S.E., sends us samples of sachet, presentation, card, and pocket almanacks, tasteful as ever. The presentation almanacks contain useful postal information, foreign monies, recipes for the sick room, and a well-sorted and displayed list of trade articles. Mr. J. Davis, of 201 Old Kent Road, forwards a toilet almanack, with a very pretty title page. It can be had printed on paper of various tints. A page of specialties can be inserted without extra charge. Almanacks are certainly a very effective form of advertisement. Customers are always pleased to receive them, and generally consign them to the purse or the pocket-book for the whole of the coming year.

UNDER the title of Wild Thyme Soap, Messrs. Whitaker & Grossmith add another variation of toilet soap, in which thymol is incorporated, to the several products of a similar kind now on the market. This appears to us to be the most pronounced of any of the specimens in regard to perfume.

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THE ANNUAL MEETING of the Mineral Water Makers' Association is to be held at the Agricultural Hall on October 28 at 2 P.M. Mr. George Read, of Leicester, will preside. It is announced that an eminent chemist may be expected to attend and discourse on the alleged presence of lead in the indiarubber bands of patent bottles. The exhibition of soda-water machinery in connection with this meeting will be held in the Agricultural Hall on October 28, 29, and 30.

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A SPECIAL GENERAL MEETING of the Chemists' Aerated Mineral Waters Association (Lim.) is to be held at the Cannon Street Hotel on Thursday, October 23, at 1 P.M., when proposals will be submitted to the shareholders to increase the capital of the company, with the object of purchasing the Montpellier estate at Harrogate on terms which seem advantageous. It is proposed to establish there a branch factory for the north of England, and the company will also have the sole right in the Kissingen and other springs of the locality.

* * *

THE PATENTED AMERICAN ADVERTISING LOZENGES.—Mr. J. Howard Davis, of Brooklyn and Manchester, has sent us samples and handbills concerning his advertising lozenges. Mr. Howard is prepared to supply, in any quantity, lozenges stamped with short advertisements, business addresses, announcements, &c. He has some very flattering testimonials, and the lozenges, which can be made 1,500 to the pound, seem likely to be a good means of advertising. There is, anyhow, some satisfaction in being able to sneak in an advertisement, seeing how often advertisements have performed that little feat on us.

* * *

WE have received from Messrs. Wyley & Co., of Coventry and London, one of their new price-list covers, which they have prepared for circulation amongst the trade. The cover, which bears outside simply the trade-mark of the firm—the historic triple spires of Coventry—is constructed to hold their priced list of drugs and chemicals, and catalogue of 200 kinds of coated pills, also an account of remedies recently introduced to the trade. Besides these necessary works of reference, and to enable members of the trade to show their appreciation of them, the cover also contains a book of order forms, the perforated counterfoil of which is intended for use as a want-book. The inside of the cover contains "Rough Legal Notes" on subjects which concern the trade. Suspended by the loop provided for that purpose, it forms a neat, handy, and useful companion for the desk of every chemist.

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HINDE'S WIRE HAIR-BRUSHES.—We have lately had the opportunity of trying one of Hinde's Penetrative Wire Hair-brushes, and can testify that its use is, as described by the patentees, "a real treat." The application of the ends of a brushful of short wires to the skin of the head does not, at first sight, seem to promise much enjoyment. Apparently the brush is composed of some 500 or 600 pins, surrounded by a small fringe of bristle. But the construction of Messrs. Hinde's brushes is so ingenious that the effect is quite oppo-

site to that which might be expected. The wires are electroplated, and their ends are all carefully rounded. They are planted in a special pliable couch, wherein is the feature of this patent, and thus they bend to any pressure. It is impossible to scratch with them, and the effect on the head is a surprising and refreshing coolness. These brushes have all the advantages of both stiff and soft brushes; they will penetrate the thickest hair, and keep the head much cleaner than those which only act on the surface of the hair. They are offered at a moderate price, and each is packed in a neat cardboard box. We are informed by the makers that the Prince of Wales, Mr. Gladstone, Mr. H. M. Stanley, and the late Prince Louis Napoleon are among the notabilities who have purchased these brushes—an important recommendation which we hope the smaller fry of this planet will duly appreciate.

ABSTRACTS OF SPECIFICATIONS.

For permission to print the following we are indebted to the courtesy of the *Engineer*:—

333. REFINING Ozokerite, *H. Ujhelyi*.—Dated January 27, 1879. 2d.

The ozokerite is dissolved with or without the use of heat, either in crude petroleum or naphtha, or in the products of distillation of the petroleum or naphtha, or in the products of distillation of coal-tar, or in other similar liquids derived from the manufacture of carburetted hydrogen, or in sulphide of carbon. The solutions of ozokerite obtained with the aid of these solvents are treated either with bone black or with the residue obtained in the manufacture of ferro-cyanide of potassium, or with a mixture of both by digestion and filtration; or by conducting the solution of ozokerite through filters containing bone black or the residue obtained in the manufacture of ferro-cyanide of potassium, or any mixture of both. From the filtered solution containing now the refined and bleached ozokerite the solvent is recovered either by evaporation in vacuo or by distillation.

364. Furniture Polish, *C. Camoyano*.—Dated January 29, 1879. 2d.

Three-quarters of an ounce of beeswax shavings is dissolved in 2 oz. of spirits of turpentine by means of a vapour bath, and when dissolved sufficient turpentine is added to make up 5 oz. This is thoroughly mixed, and 8 oz. of linseed oil, 1 oz. of boiled oil, and 5 oz. old brown vinegar added, the whole being well stirred up for a quarter of an hour, when 1½ oz. of butter of antimony and 1 drachm of wood naphtha is added, and the stirring continued for 10 minutes, after which it is bottled. The bottles are passed through a vapour bath for five minutes, and the compound is then ready for use.

300. Saponification of Mineral Oils, &c., *C. D. Abel*.—Dated January 24, 1879. (A communication.) (Complete.) 2d.

The oils are first acidified by the addition of concrete fatty matter, either animal or vegetable, and the mixture then saponified in the usual way by the addition of alkaline lye.

347. COMPOSITION FOR Preserving Food, *S. Fulda*.—Dated January 28, 1879. 4d.

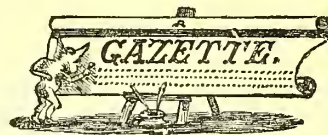
The composition consists of ½ lb. alum, ½ lb. crystal silicate of potash, ½ lb. borax, ¼ lb. cream of tartar, 6 oz. glassgall, 2 lbs. caustic lime, and 1 lb. sulphate of soda, the whole dissolved in 8 lbs. of cold water previously boiled.

438. Waterproofing WOVEN FABRICS, LEATHER, &c., *W. R. Lake*.—Dated February 3, 1879.—(A communication.) 4d.

The composition consists of:—Yellow or white wax of best quality, 1 kilo.; English varnish, .060 kilo.; Burgandy pitch, .040 kilo.; earth-nut oil, .080 kilo.; sulphate of iron, .050 kilo.; essence of thyme (or other suitable essence), .020 kilo.

461. MANUFACTURE OF Citrate of Magnesia, &c., *G. Wheeler*.—Dated February 5, 1879. 6d.

A double tank is employed, between which a circulation of cold water is maintained, in order to keep the inner tank cool. In this tank the various chemical ingredients are mixed, and owing to the coldness of the tank begin to slack, soften, or deliquesce. The ingredients so softened are fed into moulds and placed in a screw-press, when plungers enter the moulds and compress the ingredients into solid blocks.



BANKRUPT.

MANERE, ALEXANDER, Sugar House, Goulston Street, Whitechapel, brewers' chemist. September 18.

LIQUIDATIONS.

BRADLEY, JOHN, 42 Porter Street, Hull, chemist and druggist. September 15.

CHEETHAM, ELKANAH HOWARD, North Road, Clayton; JAMES BENJAMIN DUNKERLEY, North Road, Clayton, and SAMUEL HOWARD CHEETHAM, Croft Street, Clayton, trading as Cheetham, Dunkerley & Co., at the Globe Chemical Works, Clayton, Manchester, manufacturing chemists, the said J. B. Dunkerley also lately trading in partnership as a tar distiller. September 26.

CLARKE, JOHN THOMAS, 103 Church Street, Pendleton, and 21 Alpha Street, West Seedley, late 11 Monnt Pleasant Square, Salford, drysalter, patent medicine vendor, and tobacconist. September 10.

DEAKIN, GEORGE, Blaenavon, Monmouth, chemist. September 18.

KIDDLE, JAMES, 210 Cheltenham Road, Bristol, chemist and druggist. September 8.

LONGLEY, GEORGE, 52 Dalton Road, Barrow-in-Furness, chemist, &c. September 5.

LUCAS, WILLIAM, 132 Broughton Road, Salford, chemist and oil and colour merchant. September 22.

OLIVE, WILLIAM THOMAS, Britonferry, chemist and stationer. September 29.

TOMLINSON, JOSEPH EDWARD, 10 Shndehill, Manchester, druggist and drysalter, and 13 Monton Street, Greenheys, Manchester. September 9.

WATTS, WALTER, 15 High Street, Kington, chemist, druggist, and seedsmen. October 2.

DIVIDENDS DECLARED.

CAMPBELL, JOHN, JUN., Glasgow, wholesale druggist. First and final, at J MacRobbie's, 173 St. Vincent Street, Glasgow, on November 18.

FURLEY, ROBERT CHARLES, 1 Downie Place, and 1 Earl Grey Street, Edinburgh, surgeon and chemist. First, at trustee's chambers, 3A North Street, David Street, Edinburgh, on October 31.

HARRIS, WALTER WILLIAM, & BIRRELL, GEORGE, Market Place, Finchley, High Street, Highgate, and Muswell Hill, Middlesex, chemists. Second and final, of 1s. 9d., at C. J. Singleton's, accountant, 8 Staple Inn, London.

ORR, WILLIAM, JUN., Garnock Alkali Works, Irvine, chemical manufacturer. At James Thomson's, 24 George Square, Glasgow, on November 5.

WRIGHT, JOSEPH, Great Yarmouth, chemist. First, of 5s., at Lovewell Blake's, Hall Quay Chambers, Great Yarmouth.

PARTNERSHIPS DISSOLVED.

BRADY & MARTIN, Newcastle, wholesale druggists, &c. August 25.

BRIGGS & INGHAM, Altham, Accrington, manufacturing chemists. September 8. Debts by R. Ingham.

GRIMSHAW, GIBBELL & Co., Whitebirk, near Blackburn, chemical manufacturers. September 16.

MITCHELL & LAND, Andrew's Lane, Sheffield, chemical manufacturers. September 23.

PAPE BROTHERS & Co., 5 Burlington Passage, New Street, Birmingham, wholesale druggists' sundrymen. September 16. Debts by H. B. Pape.

SYKES, A. & J., Miry Lane, Netherthong, York, manufacturing chemist. September 19. Debts by John Sykes.

WOMEN AS DISPENSERS.—Dr. Beadnell Gill, of Hastings, writes in the *Times* of October 9 to urge the advantages of dispensing as an employment for women. He says:—Medical men who have private surgeries experience, in common with chemists and druggists, considerable difficulty in obtaining dispensers who combine the three-fold qualifications of honesty, sobriety, and competence. Surely, therefore, fairly-educated women might safely strike out into this new path. Their duties would not be onerous; they would not be exposed to inclemency of weather; their salaries would be sufficient to meet all reasonable requirements. The art of dispensing with accuracy and rapidity is very easy of acquirement.



The following list has been compiled expressly for THE CHEMIST AND DRUGGIST by G. F. Redfern, Patent Agent, successor to L. de Fontaine-moreau & Co., 4 South Street, Finsbury, London; and at Paris and Brussels.]

Applications for Letters Patent:—

- Barrel-stand.**—No. 3722.—J. M. Matthews, of Baker's Row, Whitechapel, London, and E. B. Burr, of Copeland Park, Walthamstow, Essex. An improved stand or support for casks, barrels, and similar vessels containing beer, wine, spirits, or other liquids. Dated September 17, 1879.
- Bottle-stoppers.**—No. 3598.—N. Thompson, of Brooklyn, N.Y., United States. Improvements in means for closing or stoppering bottles, jars, and other similar vessels. Dated September 6, 1879.
- Bottle-stoppers.**—No. 3708.—W. B. Pitch, of 5 Little Britain. Securing and bottling aerated waters and other liquids, by means of a curved neck bottle and inside stopper with india-rubber affixed thereto. Dated September 16, 1879.
- Bottle-stoppers.**—No. 3738.—N. Robertson, of Liverpool. Improvements in and relating to stoppers for bottles for containing aerated and gaseous waters and other liquids, and to the formation of bottle-necks to receive such stoppers. Dated September 17, 1879.
- Bottle-stoppers.**—No. 3822.—W. Budd, of Old Kent Road, Camberwell, London. A weighted internal cork stopper for bottles. Dated September 23, 1879.
- Bottle-stoppers.**—No. 3835.—A. W. Birt, of 42 Dock Street, London. Improvements in stoppers for bottle and jars. Dated September 23, 1879.
- Bottle-stoppers.**—No. 3869.—H. Codd, of 58 King William Street, London. Improvements in stoppering or closing bottles and such-like vessels, used for containing aerated and other liquids. Dated September 25, 1879.
- Bottle-stoppers.**—No. 3898.—W. H. Allen, of Cubitt Town, Middlesex. Improvements in stoppering jars, bottles, and other vessels containing alimentary and other substances. Dated September 27, 1879.
- Bottle-stoppers.**—No. 3930.—H. Bateman, of Stoke Newington, London. Improved means of closing or stoppering bottles to facilitate drawing off the contents thereof. Dated September 30, 1879.
- Bottle-stoppers.**—No. 3935.—H. Barrett, of Hampton, Middlesex. Improvements in bottles and stoppers, and in apparatus for filling or charging the same. Dated September 30, 1879.
- Bottle-stoppers.**—No. 3962.—J. Watson, of 53 Tatham Street, Sunderland, Durham. An improved means of closing or stoppering bottles, jars, and other similar vessels. Dated October 2, 1879.
- Caustic Alkalies.**—No. 3803.—G. I. J. Wells, of Widnes, Lancashire, alkali manufacturers. Improvements in the manufacture of caustic alkalies. September 22, 1879.
- Caustic Soda, &c.**—No. 3804.—W. J. Menzies, of St. Helens, Lancashire, chemical manufacturer. Improvements in the manufacture of caustic soda and of caustic potash, and in apparatus therefor. Dated September 22, 1879.
- Galvanic Batteries.**—No. 3436.—R. C. Anderson, of Wood Green, Middlesex, civil engineer. Improvements in galvanic batteries. Dated August 26, 1879.
- Galvanic Batteries.**—No. 3858.—J. Inray.—A communication from A. Engström, of Paris. Improvements in galvanic batteries. Dated September 25, 1879.
- Hydrocyanic Acid.**—No. 3844.—J. Inray.—A communication from the Société Anonyme de Croix, of Croix, near Roubaix, France. Improvements in the manufacture of hydrocyanic acid and its compounds, and apparatus for that purpose. Dated September 24, 1879.
- Medicated Uterine Soap.**—No. 3737.—J. B. Lee, of Hexham, Northumberland. The prevention, relief, and cure of all vaginal or uterine complaints, diseases, or disorders, to be called "medicated uterine soap." Dated September 17, 1879.
- Obtaining Gum from Phosphates of Alumina.**—No. 3579.—G. W. Bremen, of 5 The Crescent, Clapham Common, London. Improvements in the treatment of phosphates of alumina to obtain gum having drying properties and great adhesiveness. Dated September 6, 1879.
- Peptone.**—No. 3775.—W. R. Lake.—A communication from J. Rainier, of Vienna, Austria. Improved processes for obtaining peptone from vegetable substances. Dated September 19, 1879. ;

- Safety Transport Case for Packing Bottles.**—No. 3752.—H. Cochrane, of Dublin, mineral and aerated water manufacturer. An improved safety transport case for packing bottles. Dated September 18, 1879.
- Sharpening Dental Burrs.**—No. 3611.—M. A. Richardson, of Bridgport, Conn., United States. Improved process and apparatus for sharpening dental burrs and other similar revolving cutting tools. Dated September 8, 1879.
- Treating Potash.**—No. 3661.—G. J. B. Lacombe, of Lille, France, engineer and analytical chemist. Improvements in the manufacture or treatment of potash in order to obtain useful products therefrom. Dated September 13, 1879.

Letters Patent have been issued for the following:—

- Bottle-stoppers.**—No. 1210.—L. Vallet, of Liverpool. Improvements in and relating to stoppers for bottles for aerated or gaseous liquids, part of which improvements consists in an improved compound to be used for the manufacture of such stoppers, also applicable to other stoppers and various useful purposes. Dated March 26, 1879.
- Bottle-stoppers.**—No. 1518.—W. E. Gardiner, of 149 High Street, Peckham, London. Improvements in stoppers for bottles, jars, and such like articles. Dated April 18, 1879.
- Capsuling Machines.**—No. 1165.—F. Wirth; a communication from F. Fehr, of Wiesbaden, Germany. Improvements in capsuling machines. Dated March 24, 1879.
- Dental Lathes.**—No. 1521.—G. H. Jones, of 57 Great Russell Street, Bloomsbury, surgeon dentist. An improvement in lathes for dental and other uses. Dated April 18, 1879.
- Dye Stuffs.**—No. 1168.—E. T. Hughes; a communication from Messrs. F. Bayer & Co., of Barmen, Germany. Improvements in the preparation of dye stuffs. Dated March 24, 1879.
- Obtaining or Extracting Tannin.**—No. 1070.—W. A. Barlow; a communication from P. Gondolo, of Paris. Improvements in process for obtaining or extracting tannin. Dated March 18, 1879.
- Saccharate of Lime.**—No. 1366.—J. H. Johnson; a communication from H. Legru, of Paris. Improvements in the production or manufacture of saccharate of lime. Dated March 29, 1879.
- Sulphuric Acid.**—No. 2839.—W. E. A. Hartmann, of Trafalgar Terrace, Swansea, Glamorganshire. Improvements in the manufacture of sulphuric acid. Dated July 11, 1879.
- Sulpho-cyanides and Ferro-cyanides.**—No. 1359.—H. E. Newton; a communication from J. Tcherniac and U. Gunzburg, both of Paris. Improvements in the process of, and apparatus for, manufacturing sulpho-cyanides and ferro-cyanides. Dated April 5, 1879.
- Toothbrush.**—1263.—J. Varley, of Charterhouse Buildings, London. An improved toothbrush. Dated March 29, 1879.

Specifications published during the month:—

Postage 1d. each extra.

- 1878.
4914. F. Wirth. Colouring matter. 4d.
- 1879.
371. L. M. Becker. Magnetic appliances or garments. 6d.
461. G. Wheeler. Manufacture of citrate of magnesia, &c. 6d.
520. W. R. Lake. Manufacture of glue from starch. 2d.
557. F. H. R. Engel. Manufacture of gelatine. 2d.
666. C. Cheswright. Capsules for bottles, &c. 6d.
673. T. J. Smith. Extracting murexine from sea-weed, &c. 6d.
698. H. J. Smith. Mechanical contrivance to be used in processes involving the formation, decomposition, &c., of chemical compounds. 6d.
705. W. G. Strype. Apparatus for the manufacture of sulphuric acid. 6d.
713. O. C. D. Ross. Production of sulphur. 4d.
718. W. F. Jack & F. Greening. Production and application of substitutes for collodion. 4d.
719. G. A. Aitchison. Preserving, &c., cod liver oil. 2d.
724. W. Bull. Apparatus for filling and closing bottles. 4d.
738. W. R. Lake. Manufacture of chemically-prepared paper, &c., for covering silver and other metal. 4d.
786. J. W. Swan & B. S. Proctor. Medicinal rhuarb. 4d.
790. W. Laing. Bottle washing and rinsing machines. 2d.
814. L. W. Beck. Process and apparatus for the production of precipitated and assimilable phosphates. 6d.
1069. E. Belmer. Capsuling bottles, &c. 6d.
1103. C. Cheswright. Manufacture of capsules. 6d.
1530. J. Allman. Oxidising the sulphides of sodium and potassium in alkaline solutions. 4d.

EXCHANGE COLUMN.

TERMS.—Announcements are inserted in this column at the rate of one halfpenny per word, on condition that name and address are added. Name and address to be paid for. Price in figures counts as one word.

If name and address are not included, one penny per word must be paid. A number will then be attached to the advertisement by the Publisher of THE CHEMIST AND DRUGGIST, and all correspondence relating to it must be addressed to the "Publisher of THE CHEMIST AND DRUGGIST, Colonial Buildings, Cannon Street, London, E.C.," the envelope to be endorsed also with the number. The Publisher will transmit the correspondence to the advertiser, and with that his share in the transaction will cease.

Deposit of Money.—In order to ensure safety we offer the following system:—The purchaser of anything advertised in the Exchange Column may remit the amount to us. We shall acknowledge receipt to both parties by post-cards, and shall only pay it away on the advice of the remitter. Whether returned to him or paid to the seller, we shall charge a commission of 2½ per cent. on any money thus passing through our hands, and not less than 6d. on any single transaction. This arrangement should entirely prevent any cause of complaint or dissatisfaction arising out of this section of THE CHEMIST AND DRUGGIST.

FOR DISPOSAL.

Miscellaneous.

- Youth's silver English lever watch, 27. 10s. 46/28.
1½ dozen Cobden's pills, 2s. 9d. size, 1s. 9d. each. 14/49.
- Six 1-oz. bottles Howard's quinae sulph.; what offers? 48/13.
- Carter's patent pill-coater, only used once; price 20s. 41/6.
- 25 doz. 8-oz. W. M. stoppered ships' squares; 2s. 6d. doz. 47/27d.
- Set of Clendon's forceps and other dental instruments cheap. 48/21.
- Ton Gallipoli oil and case finest bleached Cochinchina ginger, cheap. 48/20.
- 12 Maw's 1s. 6d. Alexandria feeding bottles, 9 1s. ditto; what offers? 47/11.
- Morison's pills in exchange for other saleable patents. Orchard, Salisbury.
- 2-oz. bottle Sullivan's tooth stopping, cash 4s. 6d. Dentist, Medway Street, Chatham.
- A water-bed, in excellent condition; offer wanted; sale or barter. Cubitt, Norwich.
- Offers wanted for eighteen 4s. 6d. Phelps Brown's Preparations. Stain, Chemist, System.
- 14 lbs. Magenta crystals at 6s.; 10 lbs. indigo at 4s. 6d. Cowpe, 92 Fairfield Street, Manchester.
- Tooth Instruments, Clendon's forceps, Maw's No. 4 set, in morocco pouch, 42s. Kitson, Worcester.
- 60 tins 2s. 6d. Scott's smoking mixture, 3l. the lot; genuine bargain. Matthews, Chemist, Ashby-de-la-Zouch.
- Copying apparatus, similar to chronograph; perfect order; for Coddington lens, or useful exchange. Wise, Chemist, Launceston.
- Respirators, Bourne and Taylors', one each, 7s., 3s., 1s.; two at 6s. "Squire's Companion," 9th edit. What offers? Wing, Chislehurst.
- Bargains.—Quinine, acid tart., rad. zingib., mag. calc., mag. citrate, oak varnish, pulv. zingib., piper alb., counter scales, samples sent. 48/14.
- Pewter syringes, about a gross, male and female, 2s. per doz.; also 2 lb. ol. absinth, 20s. per lb.; 7 lb. hyd. sulph. flav., 3s. 6d. per lb. Kitson, Worcester.
- Student's microscope, 45s., good as new; 4-oz. morphia mir., 24s.; 2 lbs. fine Turkey opium, 26s. Green, 74 Hayley Road, Birmingham.
- Seven 40-lb. tins bals. copaib., 3 cans ol. anisi., 1 lb. Mitcham oil lavender, 4 W. qts. ol. peppermint English; what offers? J. W. Bolger, Peterboro.
- Meerschmum pipe, bird-claw pattern, cost 18s., for 10s., partly coloured, in case; also a larger plain one, cost three guineas, 16s.; well coloured. 46/23.
- Hooper's elastic air-cushion, retail 33s., never been used, 18 inches by 18, will take 17s. 6d.; also 16 Keating's 1s. insect powder, &c. Longley, 73 North Street, Leeds.
- 2½ doz. No. 4, 3 doz. No. 5, 2½ doz. No. 6 domed camel-hair mops, all perfectly sound and clean; 7½ per cent. extra discount off any list. Jenkinson, 62 Duke Street, Sheffield.
- Scott's Arabian cigarettes, 1s. and 2s. size; two ½-gallon, one quart Butler's liquid anatto, 1 doz. Good's honeydew cigarettes, 2 doz. 6d. and 1s., marking ink; what offers? 48/11.
- Offers wanted for three large galvanised iron cisterns, height 43 inches, diameter 46 inches; brass taps, half-lids, in very good condition; have been used for petroleum. Joseph Harris, 67 Wellingborough Road, Northampton.
- Surplus stock quantity India soy, Fullwood's anatto, succ. conii, respirators, puff-boxes, marking ink boxes, camphor cake boxes, 8-oz. blue poison bottles, capped citrate magnesia bottles, 2-oz., 4-oz. capped squares, Maw's 6d. violet powder, &c. What offers? J. Smith, Chemist, Clay Cross.
- For sale, cheap.—Three copper carboys, with handles; liquid capacity, about 13 gallons; weight, about 20 lbs.; diameter of hd. 9 in.; height of neck, between 2 in. and 3 in.; very useful for storing and protecting seeds and other articles from mice, &c. Hay, Chemist, 4 Regent's Terrace, Hnll.
- Ten blue syrup bottles, 25 oz., 6s. 6d.; morphia hydrochlor. (Corbyn's) 1½ oz., 8s.; liq. ammon. fort 880, 44d. per lb.; suspensory bandages, 1s. 6d. doz.; 60-gal. oil-cistern, 20s.; 30-gal. cistern, 15s.; dental instruments, odd lots; cash with order. J. W. Adams, 54 Oxford Street, Salford.
- Hancock's Prize Mixing Machine, for mixing kali, baking powder, &c., will mix 40 lbs. at one time, has not been used many times; cost 37. 3s.; what offers? 3 or 4 doz. Barrow Evans' hair restorer, 1s.; what offers? 3-doz. case Judson's gold ink 6d., 20 gross Sands' 1d. dyes on 3 doz. assorted cards; what offers? Butler & Son, Chemists, Sanvey Gate, Leicester.
- At half cost price.—Abermethy's, Cheddou's, Harvey's, Henry's, Larwell's, Mulready's, Stanton's, and Sydenham's pills; Church's cough drops, Candell's balsam honey, Jephson's tamarind waters, Woodhouse's essence ginger, Freeman's essence senna, Williams' nerve tonic, Locock's female wafers, Whitney's carminative, Foskett's cattle powders, Bewley's lettuce lozenges, Stanley's ceresine, Yoland's specific, Stonewall's pile powders. Kitson, Worcester.

Shop Fittings.

Sponge-case, as fig. 92 in Maw's list, splendid condition, price 5d. 10s. J. Curtiss, Shop Fitter, Wade Street, Leeds.

- Shop bottles, fittings, specie jars, patents, and other proprietary goods, mirror, colours. List on application. 47/9.
- The entire fittings of a chemist's shop. For particulars address, C. Whitfield, Chemist, Regent Road, Salford.
- Toothbrush show-case, glass and mahogany, 13 by 12 (fig. 52 Maw's list); cash 17. 8s. 47/27A.
- Mahogany soda-water stand, marble top (fig. 63 Maw's catalogue), cost 47. 12s., excellent condition; cash 27. 10s. 47/27C.
- Fittings and fixtures of a druggist's shop, including bottles, pots, window carboys, glass cases, nests of handsome mahogany-fronted drawers, &c.; whole or part; bargains for cash. 47/27B.
- A mahogany wall case, 9 feet 4 inches long, 79 inches high, four doors, in first-rate condition, 67.; a wall-case, with cupboard under, as Maw's fig. 199, 127. 10s.; a 8-foot ditto, ditto, as fig. 200, 147.; a nest of fittings, drawers, &c., &c., as Maw's fig. 197, 187. E. Natali, 207 Old Street, City Road.
- A chemist's fixtures, comprising 124 small mahogany-fronted drawers, dovetailed, with glass knobs, 8½ by 4 by 9 in., labelled; 30 larger ditto, all well made and seasoned, 17 by 9 by 10 in., labelled; 2 10-gall. carboys; 200 shop-rounds and stone bottles, narrow and w.n.e., gold-labelled; 26 shop-jars, maroon; large specie jar, 34 in. high by 4 feet in circumference, ornamental glass cover; 6 glass cases, besides counter ditto; mahogany counter, fig. 152, fol. 184, in Maw's catalogue, 13 ft. by 2 ft. 4 in. by 3 ft. high, 17 drawers, with return ditto, as dispensing counter, to match; together with about 140l. worth of stock; price, 180l. G. Kershaw, Hitchin.
- Bell copper measure, 1 gallon, 7s.; specie jar, Royal Arms, gilt glass cover, 30s., 18 inches without cover; swan carboy, 30 inches inclusive, 15s.; refrigerator, 3 feet long; panel counter-front and cupboard under, mahogany cased, cost 57., price 30s.; shop scales, 14-inch box, with drawer, nearly new. 17.; set weights, 3s., 10-oz. and 20-oz. bottles; gold labels, 8s. dozen; 8-inch marble mortar, 3s. 6d.; 24 mahogany drawers, 37 in. by 17 in., fair condition, want labels, 15s.; 46 blue pill jars, 13s.; 8 2-lb. blue ointment jars, 9s.; glass case, 22 in. by 11 in., 4s. Floyd & Hicks, Bury St. Edmund.
- 14-ft. 6-in. Spanish mahogany counter, very massive, fitted with drawers and cupboards, a bargain; a 14-ft. 6-in. plate-glass cupboard, Spanish mahogany frame, in very good condition, very cheap, suitable for the under-part of wall case; one each dispensing screens, 7 ft. and 6 ft. long, with glass case at each side and silvered plate-glass centre, with marble slab in front, the cases have silvered-glass backs and shifting shelves, with tablets over cases "Dispensing Department," 87. 10s. each, worth double; sponge case, as Maw's fig. 92, 57.; desks and cases, fig. 21, 65s.; fig. 39, 45s.; 8-ft. dispensing screen, fig. 165 Maw's, with silvered-glass back and tablet on top, 97., a bargain. E. Natali, 207 Old Street, almost opposite Great Eastern Street.
- A 6-ft. dispensing-screen, as 164, with tablet on top, 77.; several very handsome dispensing-screens, as Maw's fig. 78; from 4-ft. to 6-ft. 6-in. counter-cases, as Maw's fig. 16, 40s.; Maw's fig. 105, 77.; fig. 100, 60s.; fig. 101, 80s.; fig. 41, 80s.; fig. 95, 47. fig. 99, 77.; fig. 98, 87. 10s.; fig. 52, toothbrush-case, 30s. (most of the above cases in several sizes, very cheap); a number of nests of mahogany-fronted drawers in various sizes at 1s. 6d. and 2s. per drawer 20 mahogany-top counters, from 6-ft. to 12-ft. long, fitted with drawers, very cheap 30 dozen shop bottles, 8s. doz.; a quantity of blue ointment jars, new, 25 per cent. under list price; carboys, specie jars, pill machines; scales, fig. 922, 25s.; fig. 1, 20s. fig. 7, 16s. 6d. E. Natali, 207 Old Street, City Road, almost opposite Great Eastern Street.

Literature.

Pharmaceutical Journals; list on application. Felix Stevens, 51 Judd Street.

What offers?—Lescher's "Pharmacy," Southall's "Botany," Willis' "Physics." Williamson, 207 Copenhagen Street, Islington.

The *Chemist and Druggist* from January, 1876, to present month, 10s. 6d., or offers. Keeley, Chemist, Bromley-by-Bow.

The last nine years' *Pharmaceutical Journal*, good order, only two missing; bargain 40s. Hartley, Chemist, Leek.

Pharmaceutical Journals from January, 1878, to June, 1879, quite clean, unbound; 7s. 6d. A. P. S., 8 George Street, Bath.

Pharmaceutical Journal from 1872 to 1879; also *Chemist and Druggist* from 1865 to 1879; in parts or whole. What offers? H. W., 58 Stafford Street, Walsall.

Fowne's "Chemistry," 9th edition, 6s.; Lescher's "Elements," 4th edition, 4s.; Turner's "Chemistry," 7th edition, 5s.; Latin Grammar, 8d.; or offers. All equal to new. J. Jupp, Bludley Heath, Redhill.

Great Bargain.—Cottle's "Manual of Human Physiology," 3s.; "Dental Anatomy and Surgery," 3s.; Roscoe's "Chemistry," 3s.; "Philosophy of Health," illustrated, 7s. 6d.; Royle's "Materia Medica," 4s. Send for list of cheap books on all subjects. Presser, Chemist, Gateshead.

Forty-four monthly 2s. 6d. parts Cassell's "Picturesque Europe," quite clean, and perfect from commencement, some uncut, offers wanted; also for five-guinea copy engraving Holman Hunt's "Shadow of Death." Jones, Moat Lane, Smithfield, Birmingham.

Cheap.—"Treatment and Cure of Vesicular Hydatids of the Uterus," Cooley's "Cyclopaedia of Practical Receipts," "Surgery of the Rectum," "Materia Medica," "Botany," by J. H. Lescher, Cooley's "Latin Grammar," Cassell's "English-Latin Dictionary," "On Waste Products," "Immediate Care of Stricture," by Barnard Holt, Spon's "Workshop Receipts," also one-horse power engine and boiler. Address, Thomas Edwards, 56 Bellfield Street, Sheffield.

Bumstead's "Venered Diseases," a thick volume illustrated, sells 20s., second-hand, 10s. 6d.; Professor South's Translation of Chelins' "Surgery," 2 vols. of about 1,000 pages each (3l.), 10s.; "Year Book of Medicine and Surgery," 7 vols., nearly new, 1859 to 1866, 12s. 6d.; Coulson's "Syphilis," last edition, as new (10s. 6d.), 5s. 6d.; Paris "Pharmacologia," with *Materia Medica*, Art of Prescribing, Formulae, &c. (26s.), 4s. 6d.; Murray's "Materia Medica and Pharmacy," 2 vols. (25s.) 5s.; Quain's "Anatomy" (18s.), 4s.; De Pellerin's "Venereal Maladies," 5s.; Davis's "Midwifery," with atlas of plates (1l. 7s. 6d.), 10s.; Churehill's "Midwifery and Diseases of Children," 2 vols. (1l. 4s. 6d.), 7s. 6d.; Miller's "Chemical Physics," 3rd edition (10s. 6d.), 5s.; Ure's "Dictionary Chemistry," plates (21s.), 5s. Letters to Alfred Davis, 161 Seven Sisters' Road, London, N.

Formulae.

A first-class quinine and iron tonic, 5s.; also a good cough mixture, 7s. 6d.; or the two, 12s. G. H. Walters, 65 Judd Street, London.

Two hundred formulae, consisting of very valuable medical and veterinary remedies; also proprietary articles, very profitable, and command great sale; copied neatly in book for 10s. F. J. Lea, Chemist, Toutin Street, Folkestone.

You can make \$600 yearly with my book of formulae of medicines, &c. Will send it for 2s.; fasten money in letter with paste, or wrap in piece of paper. Address, A. M. Wilson, Russellville, Pope Co., Arkansas, U.S.

Soluble essence of ginger (elegant preparation), excellent blue-black ink (perfectly fluid, no deposit), white cherry tooth-paste (delicately perfumed, never ferments), powder for cleaning sponges, hair-brushes, &c. (resembles Hassell's), effervescent saline (like Lamplough's). These are genuine and reliable, 5s. each (guinea the lot). Herbert Heblethwaite, Cumberland Market, Regent's Park, N.W.

A thorough good remedy for chapped hands, also equally efficacious in removing sunburn freckles, and beautifying the complexion. Elegant appearance, fragrant odour, sells well summer and winter, with a good profit. Formulae, 3s. each. A. P. S., 8 George Street, Bath.

Eau de Cologne (equal to genuine); fragrant foaming dentifrice (similar to Floriline); effervescent fruit saline (resembles Eno's); splendid black ink (never corrodes steel pens; marking ink (black or red); golden hair-wash; brilliantine (inseparable); bay rum (splendid imitation); hair colour restorer; pomade for removing and preventing seurf; Kaloderma, or skin beautifier; cherry tooth paste (never ferments); cement (equal to Coaguline); pill coating (pearly white); magic neuralgic drops (never-failing remedy); eopaiba paste (transparent); with many others; send stamp for list. The toilet requisites are identical with those prepared by a renowned West End perfumer; the others are equally good; all are inexpensive to prepare; 5s. each (five for 1l.); inquiry letters must be prepaid. "Analyst," care of Mr. Warnes, 79 Gaisford Street, N.W.

WANTED.

New English honey. Hubbard & Son, Walsall. Hammond's pain paint, Scott's cigarettes, 49/14. Vulcaniser and gas soldering-jet, 45/24.

Large marble and iron and Wedgwood mortar and pestles, good condition. 59/66n.

Bottles, jars, carboys, show jars, cases, &c., for good-class shop. 48/18.

Barnet, Son & Foster's Mineral-water Recipe Book. Smith, Chemist, Barnet.

"Year-books of Pharmacy;" state price. W. Frost, Lee Green, S.E.

A constant-current galvanic battery, 10 to 20 cells. Osborne, Chemist, Manchester.

American rotary oil lamp for petroleum. March, New Brompton, Kent.

A copy of Britten's "Dispenser's Vade Mecum," at once. 15/15.

Old carved oak furniture. Send full particulars and lowest price, Woodson, Sheffield.

A glass case, 11 feet long, 24 feet high, and 2½ inches deep. Cavell, Loug Sutton, Lincolnshire.

Chemists' lamp and bracket. Send particulars and lowest price to Goodman, Chemist, Bath.

Whelpton's purifying pills, 2s. 9d., soiled wrappers; state price. Cowpe, 92 Fairfield Street, Manchester.

Half or one-gallon tincture press; patent mixing sieve, Bracher's preferred; forceps for wisdom teeth. John Day, Chemist, Savile Town, Dewsbury.

200 bottles and jars; 2 glass cases, with bent frontals; 4 6-gallon carboys, nearly new. Giles, Chemist, Leeds.

A few copies of the *Chemist and Druggist* for February, 1878. Publisher, Chemist and Druggist, Canuon Street, E.C.

Modern fittings for a shop, viz.: Drawers, show cases, bottles, jars, carboys, stands, leech aquarium, pill machine, &c. Rowell, Houghton-le-Spring.

Two copies of the *Chemist and Druggist* for April 15, 1873. Full price will be paid. Mrs. McCoukey, Belmont Grove, Belmont Road, Liverpool.

Immediately.—Catalogues or notice of sale by auction of counter drawers, scales, and glass cases, and labelled bottles. William Driver, Diss.

Shop-fittings, suitable for branch corner shop, 15 feet by 14 feet, also bottles, jars, &c., &c., must be cheap. Address, stating full particulars, to Mr. H. D. Stuart, Auctioneer and Valuer, Portsmouth.

Some good olive green covered jars, 10-oz., 2-lb. and 4-lb. each, better if labelled; also draws for counter, and three nests of labelled drawers, about 11 feet, 3 feet, and 12 feet long, in good condition. Apply, stating quantity, and reasonable price, to 59/66A.

ADDRESS WANTED.

J. H. Wood, architect, late of Birkdale, supposed to be living in Manchester, gentlemanly appearance; any information will oblige. T. Britten, Chemist, Birkdale.

Educational.

Lescher's *materia medica* cabinet, 4 guineas; price 2 guineas; in excellent condition. G. W. Procter, 6 Store Street, W.C.

Student's Herbarium, containing the official and leading indigenous plants (120), recently mounted, classed and named, only 10s. 6d. Tully, Chemist, Tunbridge Wells.

Botany.—Herbariums containing the official and principal indigenous plants, 7s. 6d. and 10s. 6d. "Medicus," Newferry, Birkenhead.

All the books invaluable to Minor students advertised in August issue by Saunders, Private Tutor, 79 Gaisford Street, N.W., are still for sale.

Statham's 3-grain chemical cabinet, other chemicals, and apparatus; particulars on application. Pereira's "Materia Medica," by Bentley and Redwood; 25s.; for 15s. K., Post Office, Ewell, Surrey.

Students.—Handsome mahogany French-polished *materia medica* cabinet, good as new, cost 12l. 12s., about half-price, in plain wood case for sending away; can be seen. Apply, by letter, "Wayfarer," M. Mears, Tottenham Street, Tottenham Court Road, W.

ifty questions asked of a successful student at last July Minor, 2s.; 30 prescriptions (catch and difficult) given to dispense at Minor during past session, 2s.; complete set of fresh indigenous medicinal plants sent (carriage paid) for 5s. Saunders, Tutor, 79 Gaisford Street, N.W.



THE general hopefulness in regard to an improvement in export business has been accentuated by the evidence of the last Board of Trade returns, which show that in September of this year our national exports amounted to 17,402,242*l.*, or an increase of 840,860*l.* over the returns for September of last year. Most of our products are still at lower prices than they were a year ago, and consequently this increase in value indicates a very material increase in volume of trade.

A decidedly better tone pervades the chemical market, and makers show signs of firmness in their quotations both for present and forward delivery, to which purchasers have not been habituated for some time past. There is not much actual difference in current prices, but the stronger feeling is manifested by the reluctance shown by manufacturers to accept contracts for the future except at higher rates. Soda ash has been in large demand for America, and is fractionally higher. Crystals sell at 62*s.* 6*d.* to 63*s.* 9*d.* Bichromate of potash at 5*d.* for spot, but a higher price demanded for forward delivery; chlorate quiet at 6*d.* to 6½*d.* Prussiate rather dearer at 11*d.* to 11½*d.* Bleaching powder has sold until lately at 5*l.* 10*s.* per ton, but contracts for 1880 cannot be negotiated below 6*l.* Best powdered arsenic is advanced to 10*s.* 6*d.*, London price. Refined English borax is 36*s.* A speculative movement in saltpetre has caused an advance in that product, refined English being worth 25*s.* Cream of tartar is in rather better demand, present price for French being 103*s.* Tartaric acid may be bought at 1*s.* 3¾*d.*, and citric at 1*s.* 7*d.* Antimonials are dearer as a consequence of the rise in the price of the metal, and sulphate of copper is also affected by the rise in the metal market. Quick-silver and its compounds are unchanged.

Quinine is tolerably firm, though the prices at the latest bark sales were hardly so well maintained. It is estimated that the American production of quinine reached last year as much as 60,000 lbs., and that the annual demand for the entire world is over 200,000 lbs., exclusive of special demands created by wars and extraordinary epidemics.

Iodine maintains its price with some firmness, and we suppose it is understood that there is not much danger of competition to be apprehended from the renewal of Chilian manufacture in the probable event of an early close of the war in that region. It is said, however, that the French combination of makers will be dissolved next month, and it is not impossible that a fluctuation in buyers' favour may result from that event.

Some more animation has been imported into the produce markets generally, as there seems a greater confidence and more inclination to speculation.

Almond oil is 2*d.* per lb. dearer.

Aloes.—Cape have been in rather less demand, and prices are sensibly lower.

Camphor is not in much demand, but in the absence of arrivals holders are firm.

Cardamoms.—Fine are well kept up in price, but arrivals have reduced the price of all lower kinds.

Castor oil is slightly firmer, both in Calcutta and here.

Cinchona Bark.—At the last sales on the 7th inst. prices turned in buyers' favour. Columbian and New Granada were mostly withdrawn; Carthagená realised barely last sales' rates; Ceylon was in steady demand, but generally at rather easier prices, Crown making 4*s.* 4*d.* to 6*s.*; 10 bags of

Jamaica (Government grown) sold at high prices, Crown—fine Root sort—making as much as 10*s.* 1*d.* The import of E.I. cinchona during the present year up to the end of September has reached 8,084 packages, which compares against 4,820 received in the same period of last year. The total estimated supply of cinchona bark in 1878 all over the world was about 100,000 packages.

Cloves are scarce and advancing, the price of oil having also an upward tendency.

Cubebs are advancing. Sales at 60*s.* per cwt., and holders now ask more.

Gum arabic is firmer; Benjamin has given way; Copal is dull; Myrrh in steady demand; and Olibanum advancing.

Leaves.—Coca, 1*s.* 3*d.*; Jaborandi, 1*s.* 6*d.*; Patchouli, 1*s.* 2*d.*; Buehu, 1*s.* 3*d.* These are the market prices for leaves of good quality.

Oils.—Linsed steady, but not active. Rape has a tendency to advance. Olive unchanged. Seal in demand.

Opium flat, in consequence of slack demand, but liable to a sudden rise, as reports from Smyrna indicate that any revival of demand cannot be met at present rates. The present market quotations are below the equivalent of the Smyrna market.

Rhubarb is somewhat neglected and cheaper.

Sarsaparilla.—Honduras has sold freely at advancing figures.

Seeds.—Canary and linsed, have advanced. Star aniseed sold at 95*s.* for good China.

Senna.—Tinevelly realises full prices.

Shellac.—A strong speculative demand has sprung up, resulting in an advance of 8*s.* to 16*s.* per cwt.

Soy.—Firm, China realising 2*s.* 4*d.*

Turpentine has improved fully 2*s.* in the month; and Petroleum is also dearer, being now quoted at 7¾*d.* for spot, and 6¾*d.* to 7½*d.* for November to March.

The stocks of the following drugs in the port of London on September 30 were as follows:—

	1879	1878		1879	1878
Aloes .....cs	584	1,674	Gum (Cont)—		
"kegs	11	12	Assaetida pkgs	467	321
"gourds	670	730	Benjamin.. "	916	983
Aniseed, Star chts	555	949	Damar.... "	1,249	1,617
Arrowroot ....cs	13,329	16,913	Galbanum "	12	23
" bxs & tins	15,977	7,843	Gamboge.. "	116	172
Balsam....cs, &c.	35	119	Guaiacum.. "	93	27
Bark, Medicinal			Kino "	33	13
" cks, &c.	440	882	Kowrie "	583	712
" srns, &c.	17,581	10,695	Mastic ....pkgs	140	174
Borax.....pkgs	574	1,638	Myrrh, E.I. "	146	285
Bees' Wax ..bbs &c.	646	446	Olibanum.. "	1,966	1,728
" srns			Sandarac.. "	446	999
" cks & cs	8,052	1,535	Senegal.....tms	48	20
" cakes	3	304	Tragacanth pkgs	1,839	955
Wax, Jap.veg. pkgs	3,147	4,950	Ipecac. ....cs & bgs	173	314
Camphor ....pkgs	6,147	1,580	Jalap .....bbs	377	419
Cardamoms ..chts	312	322	Nux Vomica pkgs	2,142	4,887
Coc. Ind. bgs, &c.	1,643	1,839	Oil—		
Colombo root pkgs	532	548	Castor .....cs	—	—
Cream Tartar.ccs	121	83	"cs	4,944	3,899
Cubebs .....bgs	94	184	Palm .....tms	418	958
Dragonsblood chts	66	107	Cocoanut ....tms	3,644	905
Galls, E.I. cks & cs	1,332	7,987	Olive .....cs, &c.	962	584
M'terranean sks	468	1,053	Aniseed .....cs	55	123
Gum—			Cassia .....cs	276	577
Ammoniac pkgs	464	519	Opium ..chts, &c.	902	1,054
Amimi & Copal pkgs	3,974	7,341	Rhubarb.....chts	1,327	1,271
Arabic, Barbary pkgs	1,518	1,115	Sarsaparilla ..bbs	433	900
"pkgs	2,576	398	Senna ....bbs, &c.	1,501	1,667
Turkey .. "	1,462	2,069	Shellac....chts, &c.	38,470	44,296
E.I..... "			Turmeric .....tms	1,908	854
			Vermilion	122	29

PHYSIC IN FIJI.—When a death occurs in Fiji it has to be registered. The native scribes not unfrequently fill the blank left for "cause of death" with the words—"medicin supplied by the missionaries." Formerly when the mission teachers filled up the form they left the "cause of death" blank.—*Colonies and India.*

Monthly Price Current.

The prices quoted in the following list are those actually obtained in Mining Lane for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.

HEMICALS.		1879.		1878.	
ACIDS—		s. d.	s. d.	s. d.	s. d.
Acetic	per lb.	0 2½ to	0 3½	0 2½ to	0 0
pur	"	0 4 ..	0 7	0 0 ..	0 0
glacial	"	0 9½ ..	0 10	0 0 ..	0 0
Benzoic Sublimate	"	6 6 ..	0 0	0 0 ..	0 0
Citric	"	1 7 ..	0 0	2 2½ ..	0 0
Gallic	"	3 6 ..	3 10	0 0 ..	0 0
Hydrochloric	per cwt.	5 0 ..	7 0	4 0 ..	7 0
Nitric	per lb.	0 4½ ..	0 0	0 4½ ..	0 0
Oxalic	"	0 4 ..	0 0	0 4½ ..	0 0
Sulphuric	"	0 0½ ..	0 1	0 0½ ..	0 1
Salicylic	"	8 3 ..	8 9	0 9 ..	0 0
Tannic	"	1 8 ..	2 8	0 0 ..	0 0
Tartaric crystal	"	1 3½ ..	0 0	1 5½ ..	0 0
powdered	"	1 3 ..	0 0	1 5½ ..	0 0
ANTIMONY ore	per ton	240 0 ..	300 0	240 0 ..	300 0
crude	per cwt.	35 6 ..	36 0	32 6 ..	0 0
star	"	60 0 ..	65 0	49 0 ..	49 6
ARSENIC, lump	"	24 0 ..	0 0	25 0 ..	0 0
powder	"	10 6 ..	0 0	9 0 ..	10 0
BRIMSTONE, rough	per ton	102 6 ..	105 0	110 0 ..	115 0
roll	per cwt.	9 6 ..	10 3	9 0 ..	0 0
flour	"	10 6 ..	12 3	11 0 ..	13 0
LYCERINE, German	"	41 6 ..	55 0	0 0 ..	0 0
refined	"	25 6 ..	27 6	0 0 ..	0 0
crude brown	"	1 2 ..	0 0	1 0 ..	0 0
ODINE, dry	per oz.	1 10 ..	0 0	1 10 ..	0 0
AGNESIA, calcined	per lb.	0 0 ..	0 0	137 6 ..	0 0
MERCURY	per bottle	125 0 ..	0 0	18 3 ..	18 6
IRON, red	per cwt.	15 9 ..	16 0	29 6 ..	0 0
orange	"	28 6 ..	0 0	3 5 ..	0 0
PRECIPITATE, red	per lb.	3 2 ..	0 0	3 4 ..	0 0
white	"	3 1 ..	0 0	0 0 ..	0 0
RUSSIAN BLUE	"	0 0 ..	0 0	0 0 ..	0 0
ANTONINE	"	22 6 ..	0 0	0 0 ..	0 0
ALICINE	"	17 6 ..	0 0	0 0 ..	0 0
ALTS—					
Alum	per ton	122 6 ..	125 0	122 6 ..	0 0
powder	"	140 0 ..	0 0	142 6 ..	0 0
Ammonia:					
Carbonate	per lb.	0 6½ ..	0 6½	0 6½ ..	0 6½
Hydrochlorate, crude, white	per ton	600 0 ..	760 0	600 0 ..	720 0
British (see Sal Am.)	"	0 0 ..	400 0	400 0 ..	420 0
Sulphate	per ton	380 0 ..	400 0	75 0 ..	82 0
Argol, Cape	per cwt.	75 0 ..	80 0	52 0 ..	70 0
Red	"	50 0 ..	70 0	32 6 ..	33 0
Oporto, red	"	30 0 ..	32 0	60 0 ..	65 0
Sicily	"	60 0 ..	65 0		
Ashes (see Potash and Soda)	"	5 9 ..	6 0	6 0 ..	6 3
Bleaching powder	per cwt.	35 0 ..	36 0	35 0 ..	35 6
Borax, British refined	"	2 9 ..	0 0	0 0 ..	0 0
Jalomet	per lb.	4 8 ..	0 0	0 0 ..	0 0
Chloral hydrate	"	5 10 ..	6 0	0 0 ..	0 0
Liebreich's	"				
Copper:					
Sulphate	per cwt.	18 0 ..	18 3	18 3 ..	18 6
Copperas, green	per ton	50 0 ..	55 0	50 0 ..	55 0
Corrosive Sublimate p. lb.	"	2 3 ..	0 0	2 5 ..	0 0
Cr. Tartar, French, p. cwt.	102 0 ..	103 0	104 0 ..	0 0 ..	0 0
brown	"	80 0 ..	82 6	80 0 ..	0 0
Epsom Salts	"	4 3 ..	6 0	4 3 ..	6 0
Glauber Salts	"	3 0 ..	4 6	3 0 ..	4 6
Magnesia: Carbonate	"	42 6 ..	0 0	47 6 ..	0 0
Potash:					
Bichromate	per lb.	0 5 ..	0 0	0 4½ ..	0 5
Carbonate:					
Potashes, Canada, 1st sort	per cwt.	22 0 ..	22 6	23 0 ..	0 0
Pearlshes, Canada, 1st sort	per cwt.	35 0 ..	0 0	32 0 ..	33 0
Chlorate	per lb.	0 6 ..	0 6½	0 6½ ..	0 7
Prussiate	"	0 11 ..	0 11½	0 11 ..	0 11½
red	"	1 8 ..	1 10½	1 7½ ..	1 8
Tartarate (see Argol and Cream of Tartar)	"				
Potassium:					
Bromide	"	1 5 ..	0 0	1 8 ..	0 0
Chloride	per cwt.	6 6 ..	0 0	6 6 ..	0 0
Iodide	per lb.	17 0 ..	17 6	15 0 ..	15 6
Quinine:					
Sulphate, British, in bottles	per oz.	12 3 ..	12 6	11 0 ..	11 3
Sulphate, French	"	12 0 ..	0 0	12 0 ..	0 0
Sulphate, German	"	11 0 ..	11 6	0 0 ..	0 0
Sal Acetous	per lb.	0 6 ..	0 6½	0 6½ ..	0 6½
Sal Ammoniac, Brit. cwt.	44 0 ..	45 0	44 0 ..	45 0	

		1879.		1878.	
		s. d.	s. d.	s. d.	s. d.
Saltpetre:					
Bengal, 6 per cent. or under	per cwt.	19 3 ..	19 9	19 3 ..	19 6
Bengal, over 6 per cent.	per cwt.	18 3 ..	19 0	18 0 ..	19 0
British, refined	"	24 6 ..	25 0	24 0 ..	25 0
Soda: Bicarbonate	"	9 1½ ..	9 3	9 0 ..	0 0
Carbonate:					
Soda Ash	per deg.	0 1½ ..	0 0	0 1½ ..	0 0
Soda Crystals	per ton	62 6 ..	63 0	63 9 ..	0 0
Caustic	"	9 3 ..	9 6	10 6 ..	11 0
Hyposulphite, per cwt.	"	0 0 ..	0 0	0 0 ..	0 0
Nitrate	"	16 6 ..	17 0	14 6 ..	14 9
Zinc Sulphate	"	9 0 ..	9 3	0 0 ..	0 0
SUGAR OF LEAD, White cwt.	"	37 6 ..	0 0	37 0 ..	0 0
Brown, cwt.	"	26 6 ..	0 0	26 6 ..	0 0
VERDIGRIS	per lb.	0 0 to	0 0	1 1 to	1 5
VERMILION, English	"	2 2 ..	0 0	2 8 ..	0 0
China	"	1 10 ..	1 11	2 6 ..	0 0
DRUGS.					
ALOE, Hepatic	per cwt.	70 0 ..	160 0	80 0 ..	160 0
Socotrine	"	100 0 ..	180 0	90 0 ..	200 0
Cape, good	"	48 0 ..	50 0	49 0 ..	50 0
Inferior	"	37 0 ..	47 6	44 0 ..	48 6
Barbadoes	"	60 0 ..	240 0	65 0 ..	145 0
AMBERGRIS, grey	oz.	60 0 ..	80 0	67 6 ..	85 0
BALSAM—					
Canada	per lb.	1 0 ..	1 1	0 0 ..	0 0
Capivi	"	1 8 ..	2 6	1 4 ..	2 0
Peru	"	5 9 ..	6 0	1 9 ..	2 1
Tolu	"	3 0 ..	0 0	3 0 ..	3 6
BARKS—					
Canella alba	per cwt.	17 0 ..	25 0	18 0 ..	19 0
Cascarilla	"	17 0 ..	24 0	17 0 ..	23 0
Peru, crown & grey	per lb.	1 0 ..	2 5	1 2 ..	2 8
Calisaya, flat	"	1 2 6 ..	3 0	2 4 ..	4 6
quill	"	1 2 ..	5 0	4 0 ..	7 0
Carthage	"	1 1 ..	4 0	2 8 ..	4 1
Columbian	"	0 11 ..	6 6	2 0 ..	6 0
E. I.	"	1 0 ..	4 0	1 6 ..	3 6
good & fine	"	4 1 ..	10 0	4 0 ..	8 0
Pitayo	"	2 6 ..	3 0	1 0 ..	2 0
Red	"	4 0 ..	12 0	3 0 ..	8 0
Buchu Leaves	"	0 1½ ..	1 5	0 2½ ..	1 3
CAMPHOR, China	per cwt.	81 0 ..	82 6	92 6 ..	95 0
Japan	"	82 6 ..	85 0	92 6 ..	95 0
Refin. Eng. per lb.	"	1 3 ..	1 3½	1 4½ ..	0 0
CANTHARIDES	"	1 8 ..	4 6	1 9 ..	4 0
CHAMOMILE FLOWERS p. cwt.	"	40 0 ..	100 0	60 0 ..	80 0
CASTOREUM	per lb.	16 0 ..	28 0	0 0 ..	0 0
DRAGON'S BLOOD, p. cwt.	"	90 0 ..	260 0	80 0 ..	200 0
FRUITS AND SEEDS (see also Seeds and Spices).					
Anise, China Star	per cwt.	90 0 ..	95 0	78 0 ..	90 0
Spanish, &c.	"	37 6 ..	40 0	28 0 ..	35 0
Beans, Tonquin	per lb.	4 6 ..	5 6	3 3 ..	5 4
Cardamoms, Malabar	"				
good	"	8 6 ..	9 6	6 0 ..	6 6
inferior	"	3 9 ..	8 0	2 0 ..	5 10
Aleppy	"	4 6 ..	9 6	2 0 ..	6 6
Madras	"	2 0 ..	7 6	2 8 ..	4 6
Ceylon	"	3 6 ..	4 0	3 0 ..	4 3
Cassia Fistula	per cwt.	38 0 ..	40 0	0 0 ..	0 0
Castor Seeds	"	0 0 ..	0 0	0 0 ..	0 0
Cocculus Indicus	"	7 0 ..	7 6	7 9 ..	10 0
Colocynthis, apple	per lb.	1 3 ..	1 6	1 0 ..	1 9
Croton Seeds	per cwt.	29 0 ..	30 0	32 0 ..	33 0
Cubeb	"	45 0 ..	50 0	32 0 ..	35 0
Cumin	"	20 0 ..	40 0	35 0 ..	45 0
Dividivi	"	10 0 ..	15 6	11 0 ..	16 0
Fenugreek	"	9 0 ..	10 0	0 0 ..	0 0
Guinea Grains	"	36 6 ..	0 0	28 6 ..	39 0
Juniper Berries	"	0 0 ..	0 0	3 6 ..	6 0
Nux Vomica	"	6 6 ..	9 3	9 0 ..	10 0
Tamarinds, East India	"	11 0 ..	17 0	12 0 ..	19 0
West India	"	11 0 ..	18 0	21 0 ..	25 0
Vanilla, large	per lb.	38 0 ..	40 0	16 0 ..	20 0
inferior	"	18 0 ..	37 6	12 0 ..	16 0
GINGER, Preserved	"	0 5 ..	0 6	0 5½ ..	0 6
HONEY, Chili	per cwt.	30 0 ..	39 0	30 0 ..	40 6
Jamaica	"	28 0 ..	39 0	32 0 ..	43 0
Australian	"	0 0 ..	0 0	0 0 ..	0 0
IPECACUANHA	per lb.	4 0 ..	4 8	4 3 ..	4 9
ISINGLASS, Brazil	"	2 6 ..	5 3	2 6 ..	5 8
Tongue sort	"	2 9 ..	5 8	3 6 ..	5 4
East India	"	0 9 ..	4 8	1 4 ..	4 8
West India	"	2 10 ..	4 6	3 8 ..	4 11
Russ. long staple	"	6 0 ..	10 6	6 0 ..	14 0
inferior	"	0 0 ..	0 0	0 0 ..	0 0
Simovia	"	1 6 ..	2 6	1 6 ..	3 0
JALAP, good	"	0 10½ ..	1 0	0 10 ..	0 11
infer. & stems	"	0 7½ ..	0 10	0 7½ ..	0 10
LEMON JUICE	per degree	0 0½ ..	0 1½	0 0½ ..	0 1½
LIME JUICE	per gall.	1 3 ..	1 7	1 3 ..	1 8
Liquorice, Spanish	per cwt.	39 0 ..	36 0	34 0 ..	39 0
Liquorice Root	"	20 0 ..	30 0	0 0 ..	0 0
MANNA, flaky	per lb.	0 0 ..	0 0	3 6 ..	4 0
small	"	0 0 ..	0 0	1 4 ..	1 6
MUSK, Pod	per oz.	10 0 ..	60 0	19 0 ..	55 0
Grain	"	40 0 ..	60 0	0 0 ..	0 0
OILS (see also separate list)					
Almond, expressed	per lb.	1 9 ..	0 0	1 10 ..	0 0
Castor, 1st pale	"	0 4½ ..	0 5	0 5½ ..	0 5
second	"	0 3½ ..	0 4½	0 4½ ..	0 5½
Cod Liver	per gall.	3 0 ..	4 6	2 9 ..	5 0
Croton	per oz.	0 0 ..	0 0	0 2½ ..	0 0

1879.				1878.				1879.				1878.			
Essential Oils:								Oils, continued:—							
Almond.....per lb.	20 0	to	0 0	20 0	to	0 0		Bony.....per tun	£ 5.	0 0	to	£ 5.	0 0	to	0 0
Anise-seed.....	8 9	..	0 0	7 0	..	0 0		Con.....	26 10	..	0 0	29 0	..	30 0	
Bergamot.....	6 0	..	0 0	0 0	..	0 0		WHALE, South Sea, pale	23 0	..	0 0	30 0	..	0 0	
Cajeput.....per bottle	3 6	..	4 0	0 0	..	0 0		yellow,,	22 0	..	0 0	29 0	..	0 0	
Caraway.....per lb.	0 0	..	0 0	0 0	..	0 0		brown,,	18 0	..	19 0	24 0	..	28 0	
Cassia.....	3 2	..	3 3	2 9	..	0 0		East India, Fish,,	0 0	..	0 0	0 0	..	0 0	
Cinnamon.....per oz.	3 9	..	4 6	4 0	..	5 6		OLIVE, Galipoli.....per ton	0 0	..	0 0	0 0	..	0 0	
Cinnamon-leaf.....	0 1 1/2	..	0 1 1/2	0 1 1/2	..	0 0		Gioja.....	0 0	..	0 0	0 0	..	0 0	
Citronelle.....	0 3 1/2	..	0 4	0 2	..	0 2 1/2		Levant.....	41 0	..	42 0	0 0	..	0 0	
Clove.....	10 0	..	0 0	8 6	..	0 0		Mogador.....	0 0	..	0 0	0 0	..	0 0	
Ginger Grass.....	0 3 1/2	..	0 0	0 1 1/2	..	0 2		Spanish.....	45 0	..	0 0	48 10	..	43 0	
Lavender Exot.....per lb.	1 4	..	7 3	1 8	..	7 0		Sicily.....	44 0	..	44 10	0 0	..	0 0	
Mitcham.....	90 0	..	0 0	0 0	..	0 0		COCOANUT, Cochin.....	38 0	..	40 0	65 0	..	65 0	
Lemon.....	3 0	..	5 6	4 0	..	8 0		Ceylon.....	35 15	..	36 0	49 0	..	0 0	
Lemongrass.....per oz.	0 4	..	0 0	0 2 1/2	..	0 0		Mauritius.....	37 0	..	0 0	48 0	..	48 10	
Neroli.....	0 0	..	0 0	3 0	..	6 6		GROUND NUT AND GINGELLY:							
Nutmeg.....	0 2 1/2	..	0 2 1/2	0 3	to	0 4		Bombay.....	0 0	..	0 0	0 0	..	0 0	
Orange.....per lb.	0 0	..	0 0	5 0	..	7 0		Madras.....	0 0	..	0 0	0 0	..	0 0	
Otto of Roses.....per oz.	12 0	..	23 0	22 0	..	40 0		PALM, fine.....	31 10	..	0 0	37 0	..	37 10	
Patchouli.....	0 0	..	0 0	1 6	..	3 0		LINSEED.....	27 10	..	0 0	27 15	..	28 0	
Peppermint:								RAPESEED, English, pale	0 0	..	0 0	33 0	..	33 5	
American.....per lb.	9 0	..	11 6	10 0	..	12 6		brown.....	29 15	..	0 0	31 0	..	31 5	
(H. G. Hotchkiss),	14 0	..	0 0	0 0	..	0 0		Foreign, pale	0 0	..	0 0	0 0	..	0 0	
English.....	30 0	..	0 0	24 0	..	25 0		brown.....	0 0	..	0 0	0 0	..	0 0	
Japan.....	6 0	..	6 6	0 0	..	0 0		COTTONSEED.....	28 0	..	28 15	29 10	..	0 0	
Rosemary.....	0 0	..	0 0	2 0	..	2 6		LARD.....	35 10	..	37 0	49 0	..	42 0	
Sassafras.....	1 10	..	2 0	1 9	..	2 0		TALLOW.....	30 0	..	35 0	30 0	..	34 0	
Spearmint.....	8 0	..	9 0	0 0	..	0 0		s. d.	s. d.		s. d.	s. d.			
Thyme.....	0 0	..	0 0	0 0	..	0 0		TURPENTINE, American, eks,	23 3	..	0 0	22 9	..	0 0	
Mace, expressed.....per oz.	0 0	..	0 0	0 6	..	0 7		French.....	0 0	..	0 0	0 0	..	0 0	
CECEM, Turkey.....per lb.	17 0	..	19 0	16 0	..	17 0		PETROLEUM, Crude.....	0 0	..	0 0	0 0	..	0 0	
inferior.....	12 6	..	15 0	13 0	..	15 6		refined, per gall.	0 7 1/2	..	0 9	0 7 1/2	..	0 7 1/2	
QUASSIA (bitterwood) per ton	100 0	..	130 0	100 0	..	130 0		Spirit.....	0 6 1/2	..	0 7 1/2	0 7 1/2	..	0 8 1/2	
RUBARB, China, good and								SEEDS.							
fine.....per lb.	1 6	..	2 9	1 6	..	4 0		CANARY.....per qr.	62 6	..	72 6	53 0	..	65 0	
Mid, to ord.....	0 6	..	1 3	0 9	..	1 4		CARAWAY, English per cwt.	0 0	..	0 0	43 0	..	45 0	
Dutch Trimmed.....	0 0	..	0 0	0 0	..	0 0		German, &c.....	32 0	..	38 0	32 0	..	36 0	
ROOTS—Calumba.....per cwt.	27 0	..	40 0	20 0	..	40 0		CORIANDE.....	14 0	..	22 0	16 0	..	21 0	
China.....	28 0	..	30 0	0 0	..	0 0		HEMP.....per qr.	30 0	..	44 0	35 0	..	40 0	
Chiretta.....per lb.	0 2 1/2	..	0 4	0 0	..	0 0		LINSEED.....	60 0	..	63 0	60 0	..	63 0	
Galangal.....per cwt.	23 0	..	0 0	23 0	..	25 0		Black Sea & Azof	51 0	..	51 6	50 0	..	0 0	
Gentian.....	16 0	..	20 0	18 0	..	20 0		Calcutta.....	52 0	..	52 3	51 6	..	52 6	
orris.....	20 0	..	45 0	0 0	..	0 0		Bombay.....	54 0	..	0 0	52 6	..	0 0	
Pelitory.....	0 0	..	0 0	70 0	..	76 0		St. Petersburg.....	48 6	..	50 0	0 0	..	0 0	
Fluk.....per lb.	1 0	..	1 4	0 0	..	0 0		Mustard, brown.....per bshl.	0 0	..	0 0	14 0	..	17 0	
Rhatany.....	0 2	..	0 3	0 2	..	0 5		white.....	0 0	..	15 0	10 0	..	13 0	
Seneka.....	2 1	..	2 4	2 4	..	2 6		POPPY, East India, per qr.	50 0	..	51 0	55 0	..	0 0	
Snake.....	0 0	..	0 0	0 10	..	1 0		SPICES.							
SAFFRON, Spanish.....	35 0	..	42 0	20 0	..	45 0		CASSIA LIGNEA.....per cwt.	41 0	..	45 0	42 0	..	52 6	
SALPE.....per cwt.	100 0	..	120 0	240 0	..	300 0		Vera.....	22 0	..	35 0	22 0	..	36 0	
SARSAPARILLA, Lima per lb.	0 4	..	0 6	0 5	..	0 7		Buds.....	57 0	..	58 0	56 0	..	58 0	
Guayaquil.....	1 1	..	1 4	0 9	..	0 0		CINNAMON, Ceylon:							
Honduras.....	1 1	..	2 0	1 0	..	1 4		1st quality.....per lb.	1 0	..	3 0	1 8	..	3 6	
Jamaica.....	1 6	..	1 10	1 4	..	1 9		2nd do.....	0 11	..	2 1	1 6	..	2 6	
SASSAFRAS.....per cwt.	0 0	..	0 0	9 0	..	11 0		3rd do.....	0 8	..	1 5	1 5	..	1 11	
SCAMMONY, Virgin.....per lb.	20 0	..	29 0	0 0	..	0 0		Tellicherry.....	1 5	..	1 9	1 11	..	2 5	
second & ordinary.....	8 0	..	18 0	0 0	..	0 0		Chips.....	0 2 1/2	..	0 5	0 3	..	0 6	
SENA, Bombay.....	0 0	..	0 0	0 0	..	0 0		CLOVES, Penang.....	2 1	..	2 3	1 8	..	1 10	
Tinnivelly.....	0 2	..	0 9	0 1 1/2	..	1 3		Amboyne.....	1 7	..	1 8	1 4	..	1 6	
Alexandria.....	0 3 1/2	..	1 6	0 5	..	1 6		Zanzibar.....	1 7	..	1 8	1 2	..	1 4	
SPEARMINT, refined.....	1 3	..	0 0	1 4	..	0 0		GINGER, Jam., fine per cwt.	90 0	..	180 0	90 0	..	200 0	
American.....	1 1	..	1 2	1 3	..	0 0		Ord. to good.....	46 0	..	80 0	53 0	..	80 0	
Squills.....	0 1	..	0 3	0 3	..	0 5		African.....	18 0	..	19 0	21 0	..	22 6	
GUMS.								Bengal.....	17 0	..	0 0	18 0	..	18 6	
AMMONIAC drop.....per cwt.	1 12	..	2 0	2 0	..	2 2		Malabar.....	0 0	..	0 0	0 0	..	0 0	
ANIMI, fine washed.....	14 0	..	15 10	13 10	..	15 0		Cochin.....	29 0	..	110 0	47 0	..	125 0	
sorts.....	9 10	..	11 17/6	8 15	..	11 10		PEPPER, Blk, Malabar, per lb.	0 3 1/2	..	0 4 1/2	0 4 1/2	..	0 5	
ARABIC, pale picked.....	2 15	..	3 10	2 15	..	3 5		Singapore.....	0 3 1/2	..	0 0	0 3 1/2	..	0 3	
sorts, md. to fin.....	1 18	..	2 14	2 2	..	2 12/6		White Tellicherry.....	0 0	..	0 0	0 10	..	1 4	
TURKEY, pick. gd. to fin.....	7 0	..	9 15	5 10	..	9 0		Cayenne.....	1 0	..	2 6	1 4	..	3 1	
second & inf.....	3 10	..	5 10	3 5	..	5 15		MACC, 1st quality.....	1 8	..	3 0	1 10	..	2 8	
sorts.....	1 10	..	3 2/6	2 0	..	3 0		2nd and inferior.....	1 0	..	1 7	1 0	..	1 9	
ASSAFETIDA, em. to fin.....	2 0	..	2 12	0 13	..	2 2		NUTMEGS, 75 to 80 lb.....	3 8	..	4 9	4 0	..	5 0	
BENJAMIN, 1st & 2nd.....	21 0	..	55 0	20 0	..	70 0		90 to 80.....	3 0	..	3 7	3 0	..	3 10	
COPAL, Angola red.....	3 5	..	6 0	6 0	..	6 15		132 to 95.....	1 11	..	2 11	1 10	..	2 11	
Benguela.....	3 0	..	3 10	4 0	..	5 0		PIMENTA.....	0 4 1/2	..	0 4 1/2	0 5	..	0 6	
Sierra Leone, per lb.	0 7 1/2	..	0 10	0 7 1/2	..	0 10		VARIOUS PRODUCTS.							
Manilla.....per cwt.	18 0	..	38 0	18 0	..	32 6		COCHINEAL—							
DAMMAR, pale.....	75 0	..	95 0	72 6	..	80 0		Honduras, black.....per lb.	0 0	..	0 0	2 2	..	2 6	
EUPHORBUM.....	0 0	..	0 0	9 10	..	15 0		silver.....	0 0	..	0 0	2 2	..	2 4	
GALBANUM.....per lb.	0 6	..	1 2	0 3 1/2	..	1 0		pasty.....	0 0	..	0 0	2 1	..	0 0	
GAMBOGE, pek. d. pipe per cwt.	230 0	..	260 0	210 0	..	272 6		Mexican, black.....	2 4	..	0 0	2 1	..	2 2	
GUAIACUM.....per lb.	1 0	..	1 9	1 0	..	1 9		silver.....							



THE PROSECUTIONS BY THE PHARMACEUTICAL SOCIETY OF IRELAND.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—Referring to your report in the last issue of THE CHEMIST AND DRUGGIST, of the proceedings in the case of the Pharmaceutical Society of Ireland v. Beater and Hardy, and the same v. Brownrigg, we beg to inform you that the rule of our establishments is to enter and number all prescriptions dispensed by us, and that this practice is invariably followed.

We may remark, at the same time, that we have frequently compounded prescriptions for Messrs. Beater & Hardy.

HAMILTON, LONG & Co. (Limited).

3 Lower Sackville Street, Dublin,
October 3, 1879.

WILL DR. D'UNGER EXPLAIN?

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—The descriptions in old alchemical books of the process for preparing the elixir vitæ are most satisfactory and lucid, if only you can get the *Terra virginialis* to begin with; unfortunately, here they are obscure.

There seems the same difficulty about the new elixir sobrietatis. In the first instance *Cinchona rubra* was directed, which of course means "the bark of *cinchona succirubra*," (vide P.B.); but now Dr. D'Unger himself writes to say (THE CHEMIST AND DRUGGIST, p. 359, vol. xxi.) that the bark red Loxa, variety *Vera*, of Weddell, alone possesses the right properties.

Now in the 1872 edition of Pereira's "Materia Medica" I do find a description of Red Crown Bark, *Cascarilla Colorada del Rey*, but prefixed with the remark, "It is impossible to procure either of the genuine Loxa or crown barks at the present time in this country"; and this is still true of South American, though not now of East Indian crown bark. But when I refer to Dr. Weddell's "Histoire des Quinquinas," it is a little surprising to find that in the "Tableau methodique de tous les quinquinas du Commerce," fol. 73-74, the varieties of red Loxa bark are:—1. Quinquina de Loxa rouge marron, C. Scrobiculata, of which we learn, fol. 44, that its commercial value is very small, and that it is not likely that it will ever deserve much attention. 2. Quinquina de Loxa rouge fibreux du roi d'Espagne (Quina estoposa Par in collect. Lamb. mus. brit.), which we learn from J. E. Howard's description in the *Pharmaceutical Journal*, June, 1852 to have been a fibrous lanceifolia bark. 3. Quinquina rouge de Jaen u d Loxa, of which no description is given. None of the three are named *Vera*, nor are they true crown barks at all.

At what folio of Dr. Weddell's work or works does Dr. D'Unger find bark red Loxa, variety *Vera*?

Yours, &c.,
D. H.

THE PATENT MEDICINE TRADE.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

DEAR SIR,—I should be glad if you would try and ascertain, by means of an article in this month's journal, as to the feeling of the trade with reference to the following suggestion, viz.:—That a memorial be drawn up, and signed by as many as think proper, requesting the proprietors of patent medicines to raise their prices, say, from 10s. 6d. to 12s., and the 2s. 9d. size from 27s. to 30s., the 4s. 6d. in a similar way; that their discounts to the wholesale trade be such as to prevent them from allowing more than 10 per cent. at the outside. I think that 5 per cent. off 12s. and 27s. would put a stop to grocers and others, who feel disposed to cut the trade, and make us look so greedy in the eyes of the public, as I firmly believe they, (the public) think the grocers have a handsome profit left after selling the 13½d. size for 10d.

Yours faithfully,
OCTOBER 4. QUINIA.

CHEMISTS' AERATED MINERAL WATERS ASSOCIATION (LIMITED).

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—Having received a prospectus of the "Chemists' Aerated Mineral Waters Association (Limited)," I was induced to purchase one share, in order to avail myself of the advantages offered to chemists in the low prices quoted. I gave two orders, but afterwards a firm, with whom I had dealt largely and satisfactorily for a long time, offered to supply me at prices very nearly approaching those quoted by the Association, including the cost of carriage, &c., and as I was very reluctant to close my account with them I discontinued my account with the Association. I then re-

turned empties to the Association to the amount of 2l. 2s., which I had paid for (and for which I received their credit notes), and requested a remittance of the same. To my surprise I received a letter, stating that cash could not be returned, as I had purchased the bottles, &c.; and yet in their "trade circular to shareholders" it is stated, "bottles will be charged, and allowed for at the rate of 18s. per gross, and syphons 24s. per dozen, and cases at the prices charged." This should be known to chemists, there being no intimation of it in the prospectus; and I think a simple example will be sufficient to show the operation of this principle, viz., that if a shareholder purchased six dozen syphons of soda the charge for the water would be 7s. 6d., and for the syphons 7l. 4s. Now, if a customer wished to discontinue his account with the Association, and could not have the value of the syphons repaid to him, he must suffer a heavy loss, or be obliged to hold them as dead stock.

If you think this a proper communication (through THE CHEMIST AND DRUGGIST) to be made known, you will, perhaps, be kind enough to insert it.

I am, sir, your obedient servant,

Bromley, October 7.

J. B. SHILLCOCK.

[We think it is as well that the system adopted by the Association should be known; at the same time, we have to add that the manager gives us excellent reasons for the course pursued. The company has been trading on a small capital, and with a small capital it is obvious they cannot lay in an unlimited stock of bottles or syphons. These being, as our correspondent shows, by far the most expensive portion of the stock, it is obvious that the company might be swamped if they were suddenly flooded with a quantity. The rule is made by the directors as a prudent precaution; but as every customer is also a shareholder in the concern it is clearly possible to alter the system if it should seem desirable to the majority that it should be so altered. Such a course, however, might necessitate an increase of capital.—Ed. C. & D.]

57/48. **Rat Poison.**—*Constant Reader.*—**Gliricin**, a poison for rodents, made by Apotheker Heinersdorf, Culm, Germany, is a stiff paste made of squill, meal, water, and fat. A tin box, containing 700 grammes, sells for 3s. The poisonous ingredient is the squill. Many years ago some writer suggested, that the fresh bulbs of the squills, which abound on the northern coast of Africa, should be made into a paste with meal, and exported to this country as a rat poison.

57/7. **J. T. B.—Agricultural Chemistry.**—Church's "Laboratory Guide for Agricultural Chemistry," published by Van Voorst, at 6s. 6d., is probably the very work you want.

57/66. **Dr. Rooke's Golden Ointment.**—*An Assistant* asks if any of our readers can give him the formula for Dr. Rooke's Golden Ointment. Some time ago, he says, the recipe was offered to any chemist who would apply for it.

57/49. **Aconite in Tic Douloureux.**—*E. R. G.*—The powdered leaves are given in doses of 1 to 2 grains, gradually increasing till some effect is produced. No reliance can be placed upon them, and a recent authority ("The National Dispensary") states that, so far as the internal use of aconite in neuralgia is concerned, its practical value is very small, and judicious practitioners do not use it. It often palliates the severe pain in the face or chest, but neuralgia is generally caused by the state of the system, which must be remedied by quinine, arsenic, iron, &c., aconite being reserved for external use. Without knowing all the circumstances, we cannot say whether a particular dose would be safe or advisable, nor can we tell what is the maximum dose.

57/43. **Dyeing Ivory.**—*Stafford.*—We take the following from Cooley's "Cyclopædia":—Ivory may be dyed or stained by any of the ordinary methods employed for woollen, after being freed from dirt or grease; but more quickly as follows:—

1. **Black.**—The ivory, well washed in an alkaline lye, is steeped in a weak neutral solution of nitrate of silver, and then exposed to the light, or dried, and dipped into a weak solution of sulphide of ammonium.

2. **Blue.**—Steep it in a weak solution of sulphate of indigo which has been nearly neutralised with potassium carbonate, or in a solution of soluble Prussian blue. A still better plan is to steep it in a dyer's green indigo vat.

3. **Brown.**—As for black, but using a weaker solution of nitrate of silver.

4. **Green.**—Dissolve verdigris in dilute acetic acid in a glass or stoneware vessel, and steep the pieces therein for a short time. Or use a solution of verdigris 2 parts and sal ammoniac 1 part, in soft water.

5. **Purple.**—Steep it in a weak solution of gold terchloride, and expose to sunlight.

6. **Red.**—Make an infusion of cochineal in solution of ammonia; in this immerse the pieces, previously macerated, for a few minutes in water very slightly acidulated with nitric acid.

7. **Yellow.**—Steep the ivory for some hours in a solution of sugar of lead, dry and immerse it in solution of potassium chromate; or macerate it for some hours in a saturated solution of orpiment in ammonia, and dry it in a warm place.

Dentist and Chemist.—We do not think it necessary to make further reference to Mr. Musgrave's letter in our last, on which we commented at the time. We cannot think that anyone of moderate intelligence will be so alarmed by Mr. Musgrave's whoop as to ask to have his name removed if, in good faith, he had been practising up to last July as a dentist to the extent of extracting teeth, in conjunction with pharmacy. Mr. Musgrave's letter to us, and our own comments, are reprinted in the last number of the *British Journal of Dental Science*, but with no comments.

55/43. **Tinct. Pruni Virg.**—E. E. states (in reply to *Scotus*) that a good formula for this tincture is Cort. pruni Virg. contns, 2½ oz., spt. vini. ten., 1 pint. He does not say that this is the formula.

Cinchona in Dipsomania.—E. E. asks whether a concentrated tincture of cinch. flav. would be as efficacious in curing dipsomania as that of cinch. rub. ? "If not, can any of your correspondents supply me with a cheaper remedy than the tinct. cinch. rub., as the high price of the latter places it beyond the reach of the poorer classes of this country, who are most addicted to this, I may say, national evil."

[From another letter it will be seen that it is still doubtful which is the particular bark which Dr. d'Unger recommends.]

Diagnosis.—The counter prescriber has double work to perform. He has to diagnose not only the disease, but the description thereof. These are specimens sent by J. H.

SER.—I want some med sine. I hev lost my happy-tight, au hev got a bad kowld, an a pane in my bow hills.

A box of scurby ointment from Mr. C—— the mare of L——.

A peneth of lams water (lavender water).

A pennyworth of infant's perseverance (preservative).

One pound of bullock's sago (bullet sago).

"Mandamus" sends us the following specimen. The way cochineal is spent is decidedly ingenious :—

1 Pennyworth of Ickrey Pickrey
1 do. of Jenson Root
1 do. of Snake Root
1 do. of of seksheu Eeel
1 do. of of Hay Shapran.

Chloral (5/59) asks, "Should I be right in supplying chloral hydrate to a customer who has been afflicted with neuralgia for upwards of 12 years, and to whom —— is giving it, but his charges are so high that she feels she cannot afford to continue it thus." As this is the extent of the information given us respecting the circumstances, we cannot say whether there is any ethical difficulty in the way, but on the face of things we see no reason why a chemist should not supply chloral hydrate to a customer who requires it and who knows how to use it.

58/51. A. B., Wakefield Street, Bradford, Yorks.—It should be quite clear that the remarks attached to the secret remedies whose formulæ we publish are not ours, nor even those of the analyst, but are generally the claims put forward by the makers of the articles. We know nothing of "Liton" beyond its formula, and do not endorse its pretensions. It is evidently intended to be used for long periods, like taraxacum, iron, or sarsaparilla. The neutral phosphate of lithium is only very slightly soluble; the diphosphate is crystallisable and very soluble, and forms a rather insoluble double salt with sodium phosphate. Neither salt seems to have been employed in medicine, so we can give no details of its dose and special properties.

58/50. **To Clean and Bleach Sponges.**—*Spongia.*—The first step is to thoroughly free the sponges from sand, by shaking or beating. Rinse well in hot water, and squeeze as dry as possible. Then immerse them for some time in very dilute hydrochloric acid to remove the calcareous matter, and again wash in hot or cold water till all the acid has been removed. At this point in the process they will be thoroughly clean. Three plans are adopted for bleaching sponges thus prepared. They may be immersed for 24 hours in weak chlorine water, or in weak hydrochloric acid, containing 6 per cent. of hyposulphite of soda, finishing by washing with abundance of fresh water and drying. The third process was suggested by a writer in the *Oesterreichs Zeitschrift für Pharmacie*, who objected to the use of chlorine and sulphurous acid, as injurious to the operator and his surroundings. The sponges should be steeped for five or ten minutes in a 2 per cent. solution of permanganate of potassium or sodium (about the strength of Cond's fluid). Manganese oxide is deposited on the sponges, giving them a deep brown tint. This is removed by soaking them for a minute or two in a 2 per cent. solution of oxalic acid. The sponge rapidly whitens, and must be well washed with fresh water. A beautifully bleached sponge may be obtained without any injury to its texture by substituting very dilute sulphuric for the oxalic acid, and repeatedly squeezing out.

45/22. **Ink for the Electric Pen.**—*Kappa* wishes for a formula for an ink like that used for Edison's Electric Pen. It has the appearance of being a thin printer's ink. Certainly a thin printer's ink would answer.

58/72. **Chromic Acid.**—*Crystal.*—There should be no difficulty in obtaining chromic acid by mixing 100 measures of a cold saturated solution of potassium bichromate with 150 measures of oil of vitriol, and allowing to cool. The chromic acid should crystallise in beautiful brilliant red prisms; but this you say is just what it does not do. We can only sur-

mise that your solution of bichromate or your acid was not strong enough. We have made the acid in this way with ease. A pint of water will dissolve at least two ounces of the salt.

Tripsa is the commercial name for tribasic phosphate of soda.

58/61. **Delta.**—For Chemists' Stills try Jackson, Barbican. Longmans publish a translation, by Mr. Crookes, of Auerbach's "Anthracene and its Derivatives," price 12s. A course of Cantor lectures on "Aniline Colours," by Mr. W. Perkin, F.R.S., has been published by the Society of Arts, Adelphi.

27/59. S. asks where he can procure or how he can make **Iodate of Calcium.**

19/59. W. F.—**Ink for the Chromograph.**—Dissolve anilines crystals, of any preferred colour, in a little methylated spirit, and add the solution to a solution of gum arabic or to a solution of glycerine.

29/47. **Carfar.**—**Paste Blacking.**—Rub 2 oz., sperm, seal, cod, or rape oil with 1 lb. of ivory black in a stone mortar or enamelled iron vessel; then add by degrees ½ lb. treacle, rubbing or grinding all the while, so as to have a smooth paste and to kill all the oily particles. Then add gradually to the mass ½ lb. oil of vitriol diluted with 2 oz. water, stirring vigorously all the while. Then it must stand aside for a few days, stirring well once or twice daily. Make the proper consistence with gum. Good information on all sorts of blacking is given in Part III. of Cooley's "Cyclopædia," price 2s. 6d.

55/31. **Alizarine Ink.**—A. A., *Allahabad, India*, writes: "Can any of your readers oblige me with a form for alizarine ink?" The following formula for "the so-called alizarine ink" has been given in "New Remedies." Boil 10 parts of best powdered galls with 80 parts of water until there are left 10 parts of decoction. Then dissolve 1 part prime indigo in 4 parts of fuming (Nordhausen) sulphuric acid, mix the solution with 40 parts of water, and add to it 2 parts of clean and small iron filings, which will be almost completely dissolved in the acid liquor with escape of hydrogen gas. Then add to the latter mixture 2 parts or a sufficiency of chalk to neutralise the excess of acid; allow the calcium sulphate and the excess of chalk to settle. Pour off the clear solution and mix it with the decoction of galls. Finally, add 2½ parts of gum arabic dissolved in 5 parts of water. We shall be glad to hear the experience of our readers in this matter.

58/14. **Thymol Soap.**—*Na*, Newcastle-on-Tyne, would like to ask for information respecting the most desirable strength to make a thymol soap, and whether the merits of thymol are fully established.

57/29. *Inquirer* asks, "What gas is given off when equal parts of chloride of lime and Calvert's carbolic acid are mixed?"

Hydrobromic Acid.—Nearly all authorities, with the exception of Dr. E. R. Squibb, of Brooklyn, adopt a solution of hydrobromic acid containing 10 grains HBr in 1 fluid drachm. This is the strength proposed by Dr. Dewitt C. Wade, of Detroit, who published a formula in the "Peninsula Journal of Medicine" (Detroit), February, 1875. In this formula an error occurred which was corrected in a paper by Dr. Wade published in the *Druggists' Circular*, November, 1877. The amended formula runs thus :—

R Potassium bromide	120 grains
Crystallised tartaric acid	153 grains
Water	1 fl. oz.

Dissolve the salt and then the acid in the water, and place the containing vessel in cold water for several hours, or until precipitation ceases, and decant. The resulting solution contains 10 grains of hydrobromic acid in 1 fluid drachm, with small proportions of potassium acid tartrate, and perhaps potassium bromide and tartaric acid. It is sufficiently pure for medical use, and is very easily prepared.

Mr. W. Banbury, of Marlow, would like to hear of a good recipe for gonorrhœa without balsam of copaiha. Pulv. cubebæ ʒj., with potass. bicarb ʒj. (a teaspoonful for a dose) is often an efficient substitute for the more nauseous remedy.

57/59. *Mandamus.*—You cannot claim now to enter for the Modified Examination. The time for that expired on December 31, 1869. If you can declare that you were in business on your own account before July 31, 1868, and can get a certificate from a medical man or magistrate to support your declaration, you can claim registration, not otherwise. But the Registrar is right in demanding "proper evidence." You have no alternative but to pass the Minor Examination, or give up the chemist's business. No counsel's opinion can help you.

58/56. **To Deodorise Petroleum.**—*Amateur* wishes to know how the odour of petroleum in its crude state can be covered. Oil of thyme is not sufficiently powerful. A statement has been published of a process for deodorising petroleum by conveying through a funnel with a long stem a little sulphuric acid to the bottom of the vessel, following this by the addition of some nitric acid. We do not know the proportions, nor can we say what success may attend the method.


58/47. **Leather Waste.**—C. & D. asks if any reader can suggest a profitable use to which the parings from a shoe factory can be applied. At present they are burnt in the engine furnace in place of coal. We believe in Germany a beer-finishing compound has been made of such waste.

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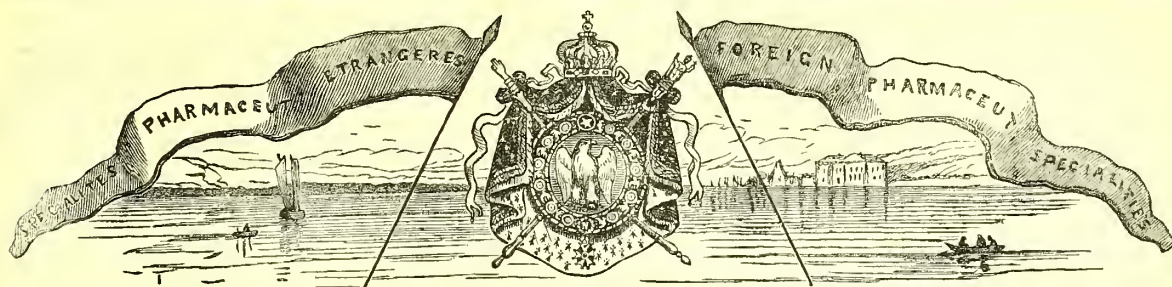
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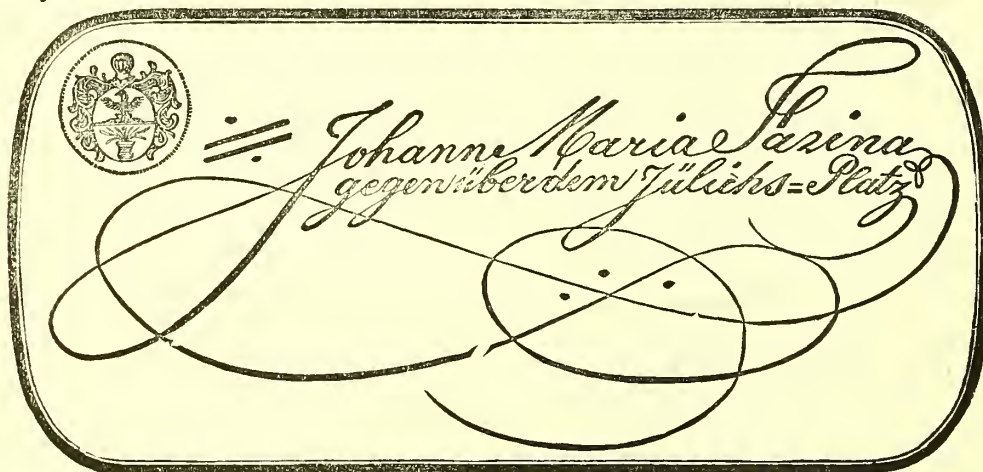
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It is guaranteed
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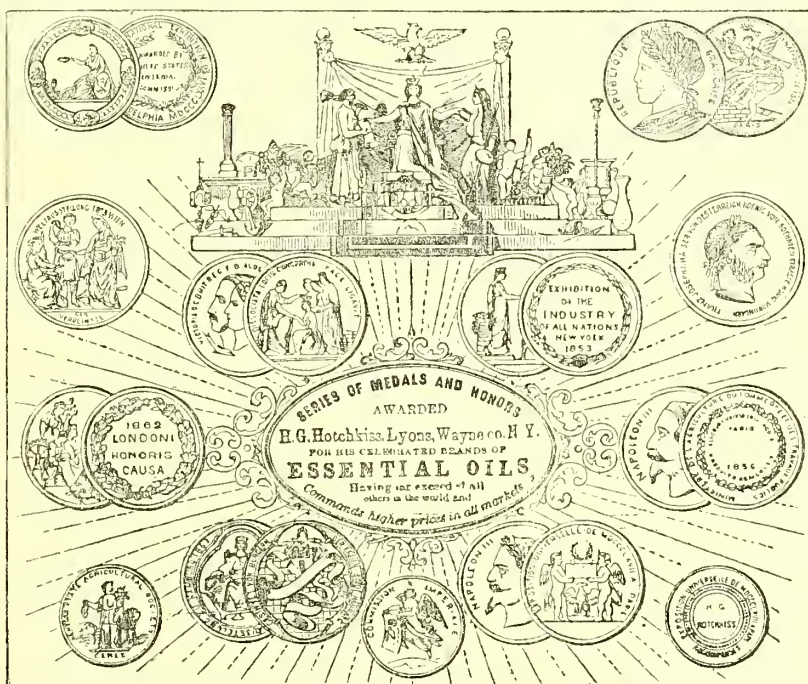
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Messrs. W. THOMAS & Co., of 153 High Street, Southampton, writing for nearly 200 bottles, say:—"The SYRUP sells marvellously."

Mr. BARROW EVANS, Chemist, Derby, writes:—"June 26th, 1879. Mr. A. J. White, London. Dear Sir,—I find that since the 2nd December, 1878, I have sold upwards of £200 of MOTHER SEIGEL'S CURATIVE SYRUP, and I cannot remember that I have had a single complaint from all I have sold."

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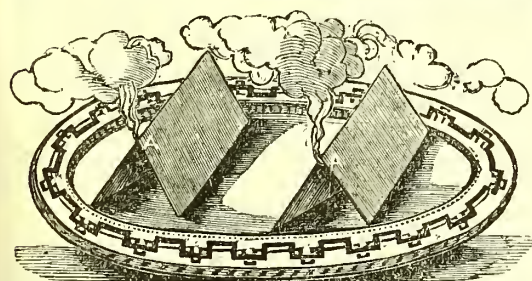
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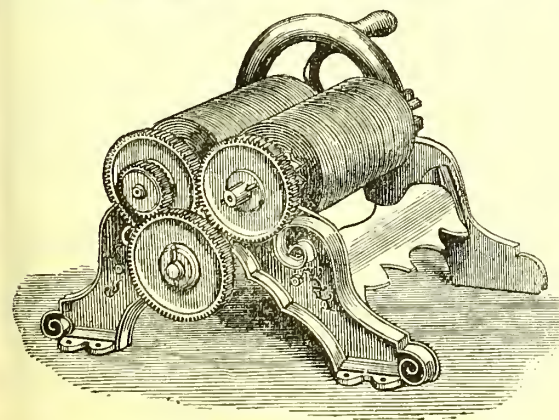
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 DEAR SIR.—I have delayed writing to you, not having had until lately an opportunity of testing your preparations of Senna and Rhubarb. From what I have now seen of their action, and also of their taste, etc., I consider them very valuable preparations of the Drugs, and well worthy the attention of the Medical Profession. The Essence of Senna appears admirably adapted for children. I am, dear Sir, yours very truly,
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 DEAR SIR.—I have tried your preparations of Rhubarb and Senna, and do not hesitate to say that they appear to act very efficiently, and to possess (in a small bulk) all the active properties of the respective drugs. I am accustomed to recommend the preparation of Senna for use in the nurseries of my patients, as a most efficient and valuable laxative for children.
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Truly yours, GOLDING BIRD.

From Dr. SEMPLE, Member of the Court of Examiners of the Society of Apothecaries.

(Extract from a Letter). Torrington Square, February 13, 1850.
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From THOS. H. JACKSON, Esq., M.D., Darlington.
 To the Editor of "The Medical Circular."

SIR,—In reply to a portion of the query in "Provincial's" letter, I may be allowed to say, that for some time past I have been in the habit of using with the most happy effect a Liq. Secale Cornut., prepared by Mr. Henry Ayscough Thompson, Worship Street, Finsbury Square, a most elegant and efficacious preparation, one minim of which contains the active principles of one grain of secale. Should I be called on to attend a patient in parturition, who has been previously subject to hæmorrhage "post expulsionem fœti," or should I suspect hæmorrhage from a tonic contraction of the uterine, I invariably give one drachm of the liq. secale in a little cold water, about ten minutes before I think the fœtus will be expelled. Uterine contraction is reproduced; the placenta is expelled, and all hæmorrhage checked.
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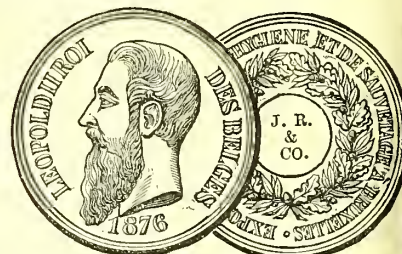
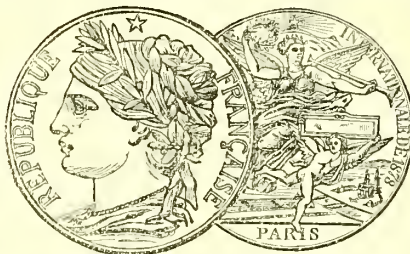
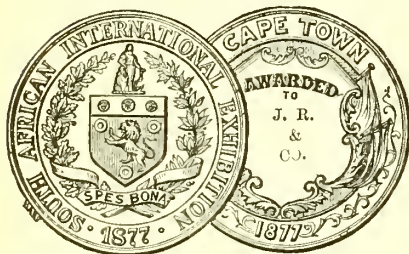
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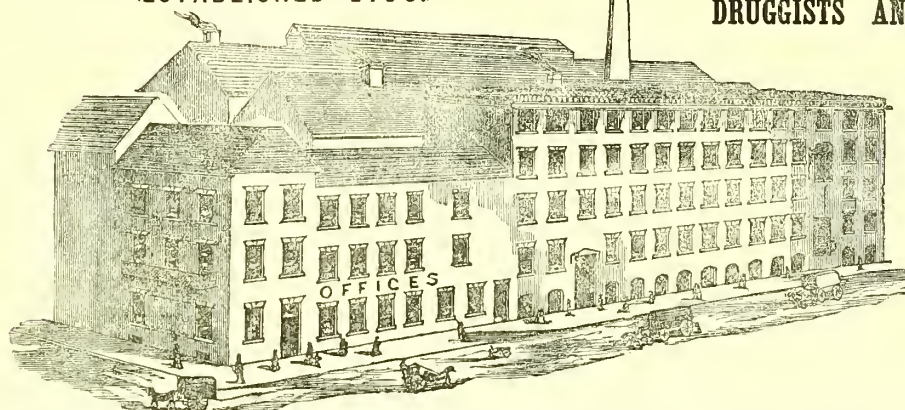
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The following Paper by HENRY DEANE, F.L.S., and HENRY B. BRADY, F.L.S., was read, amongst others, at the Bath Meeting of the
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The striking appearance resulting from the evaporation of Battle's Sedative (Plate III., Fig. 1) first drew our attention to the mode of investigation now described. We have examined it frequently and always have met with the same characters. The slides present an almost opaque mass of crystals of morphine salts and codeine, with a very small portion of narcotine (and meconic acid?), and so far as we have observed, complete absence of resinous matter and narceine. *Anyone who has studied the microscopic characters of this preparation will readily understand how it has kept its place with the profession in spite of the cheap imitations which have been so largely puffed as substitutes for it.* Though we have experimented much with a view to preparing a similar liquor, we have not yet arrived at an identical result. Of three makes which we have examined, one (Plate III., Fig. 5) is largely charged with resinous matter, and the proportion of crystalline constituents is so minute that we are satisfied its activity must be very small; another (Plate III., Fig. 4) gives a few morphine crystals, a good deal of narcotine, and more narceine; a third (Plate III., Fig. 6) is chiefly remarkable for its lack of everything crystalline.

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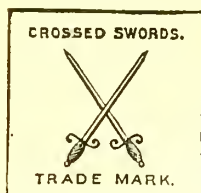
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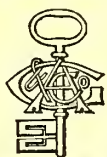
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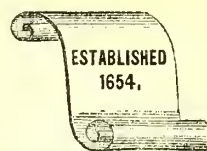
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Dr. J. COLLIS BROWNE'S CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,
and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that 'Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as deliberately untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.'

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1865, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never used any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

Apothecaries' Hall,	London.	Gale & Co.,	London.	Newbery & Sons,	London.
Allen, Hanbury & Co.,	"	Giles & Son,	Clifton.	Oldham, G., & Co.,	Dublin.
Baiss Brothers,	"	Goulding, Messrs.	Cork.	Parsons & Richardson,	Leicester.
Banks & Richards, Birmingham.		Gratton & Co.,	Belfast.	Peake, Allen & Co.,	Dublin.
Barron, Harvey & Co., London.		Grimwade, Ridley,	London.	Raimes & Co.,	Liverpool.
Bell, John, & Co.,	"	Grindley & Son,	Chester.	Raimes & Co.,	York.
Corbyn & Co.,	"	Hearon, Squire & Francis,	London.	Raimes, Blanshards & Co.,	Edinburgh.
Cox & Gould,	"	Hodgkinson, Tonge & Stead,	"	Sang & Barker,	"
Curling & Co.,	"	Hopkins & Williams	"	Sanger, J., & Sons,	London.
Curtis & Co.,	"	Hunt & Co.,	Exeter.	Sim, James, & Co.,	Aberdeen.
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Ferris & Co.,	Bristol.	Meggeson & Co.	"	Woolley, James,	Manchester.
Foulger, S., & Son,	London.	Mackay, John,	Edinburgh.	Wyleys & Brown,	Coventry.
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After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The value of the remedy alone creates the great demand.

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WHAT IS GOUT? WHAT IS RHEUMATISM? WHAT IS RHEUMATIC GOUT?

Those who suffer from these distressing maladies care little what the theoretical reply to the above questions may be, nor do we care to further afflict them with scientific supposition. The question is, **WHAT WILL REMOVE THEM?** what will allay the agonising pain, remove the cause from the system, and restore the afflicted one to a normal state of health and wonted agility? The question has been asked for years, but no satisfactory reply has been given, no *certain* cure recommended, until the discovery of Lindley's celebrated Gout and Rheumatic Pills. Since their introduction thousands have taken them, and there has never been one instance wherein they have been taken in vain!

Unfortunately there are so many so-called "remedies" recommended by so many well-meaning but irresponsible and often misinformed or ignorant people, as well as so many nostrums, introduced by charlatans into the market, that frequently enough the patient, after having tried a dozen or so different compounds without avail, comes to the conclusion that all specifics are alike—that nothing can be of any use, and that the ills from which he so constantly and so severely suffers are absolutely incurable. The wonder is, that after having been drenched with such a variety of compounds, he remains as well as he is. Let this be as it may, we have no hesitation in asserting (and it is confirmed by a multitude of testimonials) that **LINDLEY'S GOUT and RHEUMATIC PILLS** are the undoubted antidotes for **GOUT, RHEUMATIC GOUT, RHEUMATISM, SCIATICA, LUMBAGO, TIC-DOULOUREUX**, &c., more particularly and especially if used in connection with **LINDLEY'S RHEUMATIC EMBROCATION**. Words are of course valueless unless they convey truths; but we defy any statement to be impugned which conveys this fact, that the above remedies have not only no equal, but are infallible.

LINDLEY'S RHEUMATIC EMBROCATION is the most effective external remedy known, as it instantly removes all excruciating pain, from whatever cause, including rheumatic gout, lumbago, sciatica, tic-douloureux, &c. By merely spreading over the affected parts on the ends of the fingers, or on spongy piline, the pain, no matter how severe, is instantaneously removed.

Mr. Inspector **STRAW**, of the Sheffield Borough Police Force, wrote on January 3, 1879:—

"When I called at your shop two days ago I was quite unable to walk about without a stick, and then with difficulty. I took six of your pills at three times, which were given to me by Wm. Bailey, of 52 Earl Street, Sheffield, and on the following morning I was, I am happy to say, as sound as ever. I feel now able almost to challenge Weston at a mile."

WILM. SCHIELER, of Giessen, Germany, wrote on June 15, 1879:—

"I received a box of your rheumatic pills and a bottle of the liniment from a friend, a few days ago, which I have proved to be the best remedies and specifics I have ever used for sciatic pains, and I am thankful to have found such."

On May 19, 1879, **DR. FRANCIS XAVIER and DON ALFREDO AGOSTINHO CORREA**, of Lisbon, Portugal, say:—

"We have tried your gout and rheumatic pills and embrocation, and find them the best we have ever used. You will greatly oblige by sending at earliest convenience one dozen boxes pills and one dozen bottles embrocation, each 2s. 9d. size."

MR. WILLIAM ROWAN, 139 Cedar Street, New York, U.S. America, wrote on May 19, 1879:—

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Saddle	4½ x 9½	Heart	5 x 7
Oblong	4½ x 7	"	6½ x 8½
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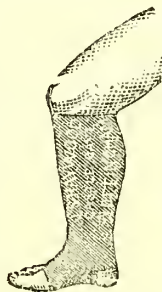
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Do. French Cop. Capsules, cost the Chemists 9 " 2/6
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Made to Order on the Premises.

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Chemists and other Gentlemen who are obliged to lead sedentary lives will find a good and comfortable corrective

LOWE'S PILLS.
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THE HEAD,
STOMACH & LIVER.
AN EXCELLENT PILL FOR
PROMOTING APPETITE AND DIGESTION.

Sold by all Chemists and Patent Medicine Dealers, in Boxes, at 7½d., 13½d., and 2s. 9d. each; or post free from the Proprietor, ROBERT HENRY LOWE, 187 Bilston Road, Wolverhampton, upon receipt of the price in Postage Stamps. Patent Medicine Vendors supplied with handbills with Name and Address upon receipt of card or label.

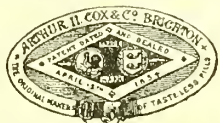
TASTELESS PILLS.

(COX'S PATENT.) Dated and Sealed, April 13, 1854.

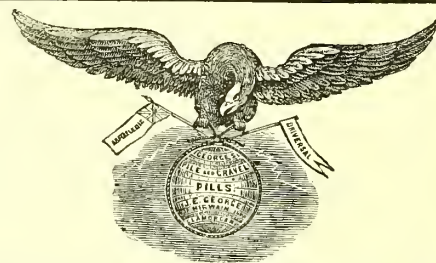
Surgeons and Chemists supplied with an excellent Aperient Pill (the formula for which will be forwarded), covered with a thin non-metallic film, rendering each pill perfectly tasteless, at 1s. a gross, postage free. They present an elegant, pearl-like appearance, and may be kept in the mouth several minutes without taste, yet readily dissolving, even in cold water, in an hour. Any formula dispensed and covered, and samples, with a list of pills from 500 different forms, which are kept in stock, will be forwarded free on application.

Twenty years' success, as proved by unsolicited Testimonials from Medical Men in almost every town and village in the kingdom, has produced imitations likely to bring a useful invention into disrepute, as a large percentage of the Varnished Pills made to imitate ours pass through the stomach unaltered.

The Registrar of Trade Marks has just granted us (after three months' publicity) the Trade Mark, of which the following is a facsimile, thus officially recognising our claim as the "ORIGINAL MAKERS OF TASTELESS PILLS." All packages sent out from this date will bear this mark—



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Truth is a solid fact, more solid than the granite rock : it is the richest coin of the purest metal, free from alloy of any description. The shaft of envy will not face it, neither will the shots of prejudice enter it. It is surrounded on all sides by a thousand foes, but each and all, without exception, are mute beneath its piercing glance.

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Which have been before the public for Thirty Years, have now become one of the leading Patent Medicines at the present day. From north to south, and from east to west, they are to be found in the homes of both the rich and the poor. All classes of Society use them, and they are by thousands declared to be

WORTH A GUINEA A BOX.

For a Weak Stomach, Impaired Digestion, and all Disorders of the Liver, they act like "MAGIC," and a few doses will be found to work wonders on the most important organs in the human machine. They strengthen the whole muscular system, restore the long-lost complexion, bring back the keen edge of appetite, and arouse into action, with the ROSE-BUD of health, the whole physical energy of the human frame. These are "FACTS" admitted by thousands, embracing all classes of Society, and one of the best guarantees to the Nervous and Debilitated is, BEECHAM'S PILLS have the LARGEST SALE of any Patent Medicine in England.

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GREAT REDUCTION IN PRICE of the CELEBRATED PATENT RECESS LABELLED SHOP ROUNDS.

Parties about to Open New Establishments or Refit Old Premises should compare following Nett Prices and send for Sample Sheet of Labels.

THESE PRICES INCLUDE GLASS LABELS ATTACHED TO BOTTLES READY FOR USE.

Size.	Height.	FLINT GLASS.		BLUE GLASS.		per dozen.
		N.M.	W.M.	N.M.	W.M.	
4 ounce	5½ inches	12/	14/	14/	16/	
8 "	7 "	14/	16/	16/	19/	
16 "	8 "	15/	17/	18/	20/	
20 "	9 "	16/	18/	19/	21/	

Prices of other Shop Bottles, Pots, &c., on application.

Size.	Height.	FLINT GLASS.		BLUE GLASS.		per dozen.
		N.M.	W.M.	N.M.	W.M.	
32 ounce	10½ inches	18/	20/	20/	24/	
42 "	11 "	20/	24/	24/	27/	
½ gall.	12½ "	25/	30/	30/	34/	
1 "	14 "	32/	40/	40/	48/	

Sample Bottle sent on receipt of 1/7 in stamps.

Mr. ALEX. KINNINMONT, F.C.S., Pharmaceutical Chemist, Glasgow, writes—"I have had these bottles in constant use for over four years and can confidently recommend them for their clean and brilliant appearance and durability. They are also safer to use than the ordinary labelled bottles, as, from having the name of the contents all in front in two lines, there is much less danger of mistake."

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CHEAPER BOTTLES. BARNSBURY GLASS CO., 5 LITTLE BRITAIN, LONDON, E.C.

(Opposite Maw, Son, & Thompson's.)

Made Vials. ¼ & 1dr. 2dr. ½oz. 1oz. 1½oz. 2oz. 3oz. 4oz. 6oz. 8oz.	Blue Chlorodyne, octagons	2/9	3/3	3/9	4/3	4/9	6/	7/	8/3	9/6	10/6
Homeopathic, plain or spouted..	..	3/	3/3	3/9	4/6	5/	6/	7/3	9/	10/	12/
White flint, tall, medium, or squat round octagon or graduated to tea-spoons ..	..	2/6	3/	3/6	4/	4/6	5/9	6/3	7/9	10/	12/
Green glass, ditto ..	..	2/3	2/9	3/3	3/9	4/3	5/6	6/3	7/	9/6	10/6
Round shouldered, lime and glycerine ..	..	2/9	3/3	3/9	4/3	4/9	6/	7/	7/6	9/	11/6
Ditto, ditto, wide mouth	2/9	3/3	3/9	4/3	4/9	6/	7/	7/6	9/	11/6	
Essences.—White flint glass, round, oval, and square..	..	4/6	5/6	7/	8/	9/	9/				
Lnbin's or Oldham, square ..	..	4/9	5/9	7/3	8/3	9/3	9/3				
Rimmel or Cannon's, round ..	..	5/	6/	7/6	8/6	9/6	9/6				
Lavenders, long neck, squares ..	..	5/	6/	7/6	8/6	10/	10/	12/	15/		
Ditto Oxford ..	..	5/	6/	7/6	8/6	10/	10/	12/	15/		
White Flint Pomades.											
Round, hipped, or turned back mouths ..	..	3/3	4/	6/	8/	8/9	9/	10/			
Ditto, ditto, stoppered ..	..	—	—	14/	16/	18/	19/	20/	25/	30/	
Oval or round, black caps ..	..	—	—	—	11/	12/	14/	16/6			
Ditto, boxwood caps ..	..	—	—	—	15/	16/	19/	22/			
Round boxwood, screw caps ..	..	—	—	—	17/	18/	20/	24/			
Squat, boxwood screw caps ..	..	—	—	—	—	18/	20/	24/			
Blue Fluted Poison ..	..	—	4/	5/	6/	8/	10/	12/	14/	15/	

Patent Medicines and Proprietary Goods, as Powell's, Floriline, Kay's Linseed, Winslow's Syrup, Atkinson's Preservative, Seigel's Syrup—Green glass .. 3/3 3/9 5/6 6/ 7/ 8/ 9/ 10/ 12/

Five gross quantities, name plate charged, 5/.

Kali and Quinine. ½oz. 1oz. 1½oz. 2oz. 3oz. 4oz. 8oz. Wide mouth, white flint .. 4/3 4/9 6/ 7/ 7/6 8/6 11/9

Dispensing Medicines. Any shape or graduated. 2oz. 3oz. 4oz. 6oz. 8oz. 10oz. 12oz. 16oz. 20oz. 24oz. Tint .. 7/ 7/ 8/ 9/6 9/6 11/6 14/ 16/ 19/ 22/

Dispensing (Water Blue) Medicines. Very best goods in the English market .. 9/ 10/ 10/ 11/6 11/6 15/ 18/ 22/ 28/ 28/

Citrate of Magnesia. Blue, plain .. 3oz., 7/6; 6oz., 9/6; 8oz., 12/ Ditto, ditto, fitted with boxwood top corks .. 12/6 14/6 18/

Mineral Water and Sauce Bottles. Long neck, squares and rounds, 5 or 6 oz. Sauce .. 9/ per gross. Round cork, lined and stoppered, as Lea & Perrin's, York Relish, &c. .. 11/6

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Soda, Lemon, and Seltzer, usual shapes and size .. 13/ per gross. Split sodas, &c. .. 10/6

Barrett & Elers' Patent with ebonite or glass stoppers— [Names free in quantities.] Splits, 30/; full size, 33/

Dutch Drop, Oil, Gum, Ink, Polish Bottles, 1d.

"Green Burst Off" Judson's Dye bottles, all at 2/6 per gross

*We are frequently having new moulds made for these goods, and should gladly esteem inquiries for sizes, and quotations for quantities.

Ink, Oil, Polish, Gum, and Sauce; made mouths.

Green glass .. 2oz., 6/; 3oz., 7/; 4 oz. 8/; 5oz., 9/; 6oz., 10/; 8oz., 12/.

Feeding Bottles. per gross.

Straight green glass .. 10/

Straight white glass .. 13/

Curved neck green glass .. 10/

Curved neck white glass .. 13/

Fitted green glass, wood tops, corks, complete .. 30/

Fitted white glass, porcelain caps, one brush, packed in neat box, &c., complete .. 48/

Fitted white glass, superior manufacture, porcelain caps and unions, two brushes, ditto .. 60/

*Five Gross Orders we can include Name and Address on the bottle and box, free of extra charge.

Feeding Bottle Accessories. per gross.

Bone shields .. 1/9

Glass tubes, melted ends .. 0/9

Earthenware unions .. 1/9

Glazed ditto .. 3/6

Boxwood ditto .. 0/9

Boxwood plug tops and cork rings .. 4/6

Glazed earthenware plugs and cork rings .. 6/6

Earthenware caps, cork lined .. 9/

Ditto ditto, superior manufacture, ivory glaze .. 10/6

Cork rings .. 1/

Vinegar, Pickle, Jelly, and Mustard Bottles.

Imperial pickle quarts .. 22/

" vinegar quarts .. 21/

Reputed " " half-pints .. 20/

Pickle pints, large .. 15/6

" small .. 14/6

" half-pint .. 13/

" quarter-pint .. 11/

Jelly quarts .. 22/

" pints .. 18/

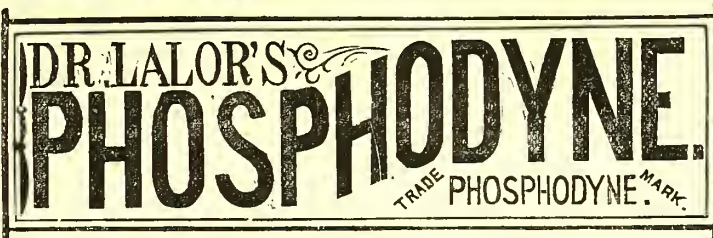
" half-pints .. 15/

Mustards, 1-lb. .. 15/

" ½-lb. .. 13/

" ¼-lb. .. 11/

Wholesale Druggists' Bottles a speciality.

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Purifies and Enriches the Blood; Clears the Skin; Thoroughly Invigorates the Brain, Nerves, and Muscles; Re-energises the Failing Functions of Life, and thus Imparts Energy and Fresh Vitality to the Exhausted Nervo-Electric Force; and Rapidly Cures every form of Nervous Debility, Paralysis, Nervous, Mind, and Heart Diseases, from whatever cause.

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IMPORTANT NOTICE.—Every Bottle bears the British Government Stamp, with the words, Dr. Lalor's Phosphodyne, London, England, by Order of Her Majesty's Honourable Commissioners. **If not, it is a Forgery.**

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PROFESSOR ATTFIELD, Ph. D., F.C.S. (Professor of Chemistry to the Pharmaceutical Society of Great Britain, Nov. 1872), writes:—"Evans's Extract is incomparably more valuable than any preparation of malt hitherto offered to the Public."

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Dr. APJOHN writes:—"Of these constituents the most remarkable are those which include Nitrogen, the amount of which is unusually large—reaching, as it does, nearly 5 per cent. The Protein compounds in an ounce of it weigh 22.32 grains, and the analogous compounds in an ounce of beef steak 98.43 grains. Hence, weight for weight, the alimentary value of the Extract is very nearly one-quarter that of the beef-steak. It is therefore, nutritious to a high degree, and, being no doubt easy of assimilation, it must constitute a useful supplementary food in cases of debility and weak digestion."

EVANS'S SOLID EXTRACT OF MALT is also prepared with the following combinations:—

Malt with Quinine and Iron, Pepsine, Parrishes' Chemical Food, Hypophosphites, Cod Liver Oil.

EXTRACT OF MALT—"EVANS'S" possesses the power of producing a perfect emulsion with Cod Liver Oil, and in this state the taste of the Cod Liver Oil is more perfectly concealed than can be accomplished by any other known process.

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The attention of Chemists is respectfully invited to the profit resulting to them by supplying these Preparations to Surgeons, viz., on the 4/6 size, 1/4 each, and on the 7/- size, 2/3 each.

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Chemists, Storekeepers, Shippers, and others who have not hitherto dealt in these Oils, would do well to order a trial assortment, as they invariably give the greatest satisfaction when once used. No other Proprietary Medicines are so largely recommended by, or have received so many commendations from, Physicians as these—see circulars, which may be had from all Wholesale Houses. They are specially prepared for shipment, and will stand any climate. FOX'S "PALATABLE" COD LIVER OIL, 1s., 2s., 3s. 9d.; with QUININE, 2s. 6d., 4s. 9d. FOX'S "PALATABLE" CASTOR OIL, 6d., 1s. GEORGE W. FOX & CO., CITY ROAD, MANCHESTER, and through all Wholesale Firms. Very Liberal Discounts to Shippers.

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Extract from "Brief."—"GOLDEN DROPS FOR DEAFNESS.—B. M. Osborne has produced a valuable specific for this distressing complaint. We have tested its efficacy, and can, with confidence, recommend it to the public as an excellent remedy. It is perfectly harmless, and the directions for use are plain and simple. It is secured by a registered trade mark, 'Human Ear,' by which the genuine article may be recognised."

TESTIMONIALS.

"EDGEASTON, MAY 4, 1877.—Sir,—My niece, who came to stay at my house, was suffering from Deafness and difficulty of breathing, owing to weakness of the tonsils caused by Quinsy. She tried your wonderful 'Specific,' and after applying it a little more than a week her hearing and breathing were quite restored. I am glad to communicate this as the medium of personal thanks and for the good of others.—Yours truly, C. L."

"CLAPHAM, SEPT. 5, 1877.—Sir,—Be so good as to send me six bottles of your 'Cure for Deafness,' and you will oblige. I am much better. Shall I go on with it? Be so good as to let me know. It has done me more good than physicians to whom I have paid twenty guineas; they cannot do me any good.—Yours, &c., J. P."

"CRYSTAL PALACE ROAD, EAST DULWICH, JUNE 10, 1878.—Sir,—During the last few weeks my little girl has been quite deaf, and suffering considerable pain in her left ear. I was recommended to use your 'Golden Drops for Deafness,' and I am delighted to say that, after applying them three times, they brought away two large secretions of foul matter. The child can now hear distinctly the faintest sounds, and is free from pain. I send you this testimonial unasked, in the hope that its publication may increase the sale of your truly valuable 'Golden Drops.'—Yours respectfully, I. H. S. N.B.—If you will send me some testimonial sheets I will distribute them amongst my friends."

Sold by all Wholesale and Retail Chemists, price 1s. 1½d., 2s., 2s. 9d., and 5s. 6d.; or free by post for 1½d. extra from

E. M. OSBORNE, 26 THAVIES INN, HOLBORN CIRCUS, LONDON.

Wholesale and Export Agents—EVANS, SONS & CO., London; and EVANS, LESCHER & WEBB, London.

TOWLE'S CHLORODYNE

The Original Preparation, as approved by the Medical Profession on account of its known composition and uniform strength.

Retail at 13½d., 2s. 9d., and 4s. 6d. Dispensing, 4 ozs., 4s. 6d., and 10 ozs., 11s., stamped.

LIQ. CHLORODYNII,

As originally introduced by A. P. Towle, and free from stamp duty for dispensing.

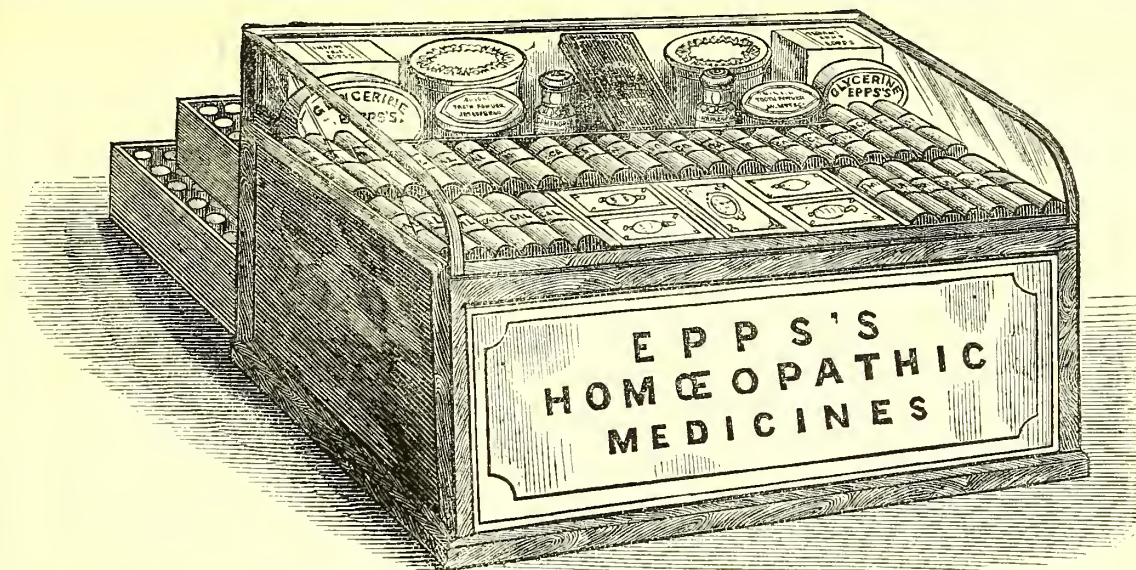
4 ozs., 4s.; ½ lb., 5s. 6d.; 1 lb., 10s.

TOWLE'S CHLORODYNE LOZENGES AND JUJUBES

In 1, 2, and 4 lb. Bottles, at 3s. per lb., and 6d. and 1s. Boxes. Foiled, Lined and neatly got up for the counter, 4s. 6d. and 9s. per doz.

**A. P. TOWLE, Chlorodyne Manufacturer,
75 BACK PICCADILLY, MANCHESTER.**

Bills with name on application with instructions for forwarding.



HANDSOME COUNTER SHOW CASE, £9 9s. net; contents retailing for £16 13s. 6d.

The New Illustrated Price List of Counter Cases, Medicine Chests, Tinctures, Drugs, and Sundries, forwarded on application.

JAMES EPPS & CO., Homœopathic Chemists,
48 Threadneedle Street. London.

HANDSOME CHEMIST'S SHOP FITTED COMPLETE

WITH ALL NEW GOODS,

INCLUDING GLASS SHOW CASES.

GOLD-LABELLED SHOP BOTTLES, JARS, &c.,

For £75.

Retail and Dispensing Counters, Shop Drawers, Window Enclosures, Wall and Counter Bent, Flat, and Upright Show Cases, Dispensing Screens, Show and Soda-water Stands, Sponge and Cigar Cases, Tea and Coffee Bins, Window Carboys, Specie Jars, Labelled Shop Bottles and Jars, Store Bottles and Boxes, Tea, Coffee, and Sugar Mills, Tea, Coffee, and Store Canisters, Oil and Treacle Cisterns, and every description of new and secondhand Shop Fixtures, Office Furniture, and Utensils required by the various Home and Colonial Trades. Three extra Show Rooms have just been added, to which an inspection is invited.

LLOYD RAYNER,

WHOLESALE AND EXPORT MANUFACTURER OF

MEDICAL AND GENERAL SHOP FITTINGS,
EXHIBITION AND COUNTER SHOW CASES,
SHOP FRONT BUILDER,
FIXTURE DEALER, AND MEDICAL LABELLER.

SHOW ROOMS AND OFFICES:

333 Kingsland Road.

FACTORIES:

2 Downham Road, Kingsland, and Whitmore Road,
; Hoxton, London, N.

ESTABLISHED 1843.

THOMPSON & CAPPER,

WHOLESALE & EXPORT

HOMŒOPATHIC CHEMISTS,

55 Bold Street, Liverpool,

AND

51 Piccadilly, Manchester.

NEW ILLUSTRATED PRICE LIST ON APPLICATION.

THOMPSON & CAPPER have recently purchased the long-established business of **HENRY TURNER & CO.,** Manchester, which they now carry on under their own name.

THOMPSON & CAPPER'S DENTIFRICE WATER

Is kept by T. & C.'s Agents throughout the world.

PRICE CARD ON APPLICATION.

BEST WORK ONLY.]

[BEST WORK ONLY.

FILMER KIDSTON,

MEDICAL SHOP FITTER & SHOW CASE MAKER,

AND MANUFACTURER OF EVERY DESCRIPTION OF DRUGGISTS' FURNITURE.

NOTICE.

Chemists commencing Business, Fitting-up Shops, or making alterations to their premises, should first inspect KIDSTON's modern and unique style of manufacture, so much approved of by the Profession for its elegant appearance and superior finish.

Plans and Estimates supplied. Gentlemen are invited to inspect KIDSTON'S
PRIZE DISPENSING COUNTER,

Which can be seen at the Show Rooms,

DUKE STREET, BRUSHFIELD STREET, BISHOPSGATE, LONDON.

ILLUSTRATED LISTS OF SHOW CASES ON APPLICATION.



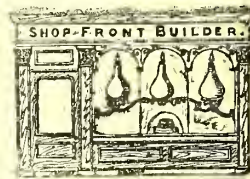
SHOP-FITTINGS.

ESTABLISHED 1830.

SAMUEL HOWLETT,

4 LINDLEY STREET (formerly called North St.), SYDNEY
 STREET, MILE END, LONDON, E.,

A few Minutes' Ride by Omnibus from the Bank.



MEDICAL AND GENERAL SHOP FITTER.

SHOPS FITTED BY S. H., and to whom references are kindly permitted:—

Messrs. Corbyn, Stacey & Co., 7 Poultry, London.

Mr. H. Deane, Clapham, London.

„ John Broad, Hornsey Rise, London.

„ N. Nicholson, Canonbury, London.

&c.

&c.

&c.

Messrs. Leath & Ross, St. Paul's Churchyard, London.

Harvey & Reynolds, Leeds.

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Mr. Thomas Hall, Lowestoft.

&c.

&c.

&c.

Cabinet Fitter to the Pharmaceutical Society of Great Britain. Manufacturer of every description of Air-tight Glass Show cases for Chemists, Jewellers, &c. Medical Labelling, &c.

Plans and Estimates for Entire Fittings and Alterations supplied.

R. TOMLINSON,

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AND
 MANUFACTURER OF DRUGGISTS' SUNDRIES,
 15 St. PAUL'S SQUARE, BIRMINGHAM.

VALUATIONS EFFECTED.

BUSINESS TRANSFER AGENT.

Second-hand Fixtures for Sale, Jars, Globes, Drawers, Bottles, Counter Glass Cases, Shelves, &c.

SECOND-HAND FIXTURES OF ALL KINDS BOUGHT AND EXCHANGED.

R. T. will wait upon parties fitting up, to plan and advise. 2nd-class fare only charged.

FOR SALE, FIXTURES FOR SHOP, ABOUT SIXTEEN FEET BY TWELVE.

WRITE FOR LIST.

ESTABLISHED 1851.

CHEMISTS' SHOP FITTERS,

SHOW CASE MAKERS & SHOP FRONT BUILDERS.

JOHN CURTIS & SON,

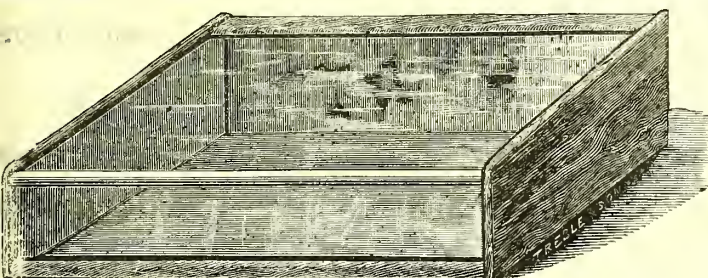
NORTH OF ENGLAND STEAM SHOP FITTING WORKS,

WADE STREET AND WADE LANE, LEEDS.

Designs and Estimates furnished.

EXPERIENCED FITTERS SENT TO ALL PARTS. DESIGN SHEETS FORWARDED ON APPLICATION.

TREBLE & SON'S SPECIALITIES.



THE WELL-KNOWN "LONDON" SHOW CASE.

SIMPLE, ELEGANT, AND USEFUL.

Made of Solid Mahogany and French Polished; Polished Plate Glass Top and Front $\frac{1}{4}$ inch thick.

This Show Case cannot be equalled at the price.

Among the many advantages combined in this useful and inexpensive SHOW CASE, we may mention that it is so made that two or any number may be placed together, to occupy full length of counter if required. It is made 24 in. long, 18 in. wide, 8 in. high at back, and 7 in. in front. A bright burnished Silverdine Bar has been introduced in front, which has an excellent effect; does not change colour; is always bright, and merely requires dusting. The back of Case is hinged to open, and secured by a brass spring catch. The bottom of Case is covered with blue leatherette.

Special Price, 18/6 for Cash.



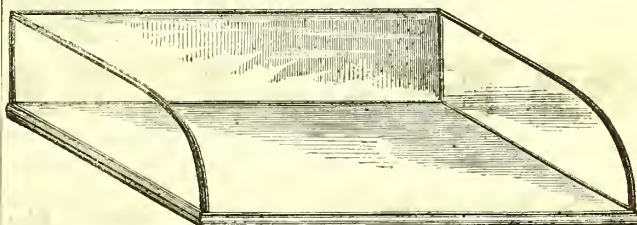
**FULL
SIZE.**

**REGISTERED
CRYSTAL
CUT GLASS
DRAWER KNOB
PRICE 4/6 doz.**

Borers for Making Holes,
and Tool for making the
Screw in drawer front,
1s. each.

A Sample Knob will be sent by Post
on receipt of Six Stamps.

TREBLE'S HALF-GUINEA SHOW CASE.



10/6 Cash.

Packed in Deal Box for enclosure Free of Charge.

This neat and elegant little Show Case is 14 inches long, 10 inches back to front, 3 inches deep inside, with clear bent glass top, glass ends, silvered glass mirror back, the bottom lined with blue velvet, and edged with ebony.

GEO. TREBLE & SON, MANUFACTURERS OF CHYMIST'S SHOP FITTINGS

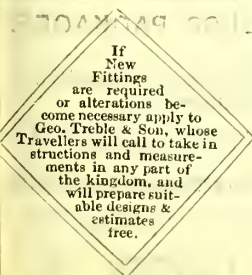
OF ELEGANT DESIGN

AND SUPERIOR CONSTRUCTION,

GLOUCESTER STREET,

HOXTON,

LONDON, N.



FERRIS & COMPY.'S PURE THYMOL SOAP,

PREPARED FROM

THYMOL, THE NEW ANTISEPTIC AND DISINFECTANT.

THYMOL, a newly-discovered Crystal prepared from Wild Thyme (*Origanum Vulgare*), is pronounced by some of the most eminent Chemists and Physicians in Europe to be far superior to, and stronger than, Carbolic Acid, Coal Tar, or any other of the Antiseptics and Disinfectants hitherto known. It has been shown by the experiments of LEWIN and BUCHOLTZ to be about eight times as powerful as Carbolic Acid.

It has also the very great advantage of being **QUITE HARMLESS**, and possesses the **DELICIOUS** and **FRAGRANT ODOUR** of **WILD THYME**.

FERRIS & COMPY.'S PURE THYMOL SOAP,

Manufactured by them with their Pure Crystals of Thymol, is confidently recommended as one of the very best and most elegant Soaps ever introduced to the Public.

It is adapted for the **TOILET** as a **SKIN SOAP**, as an **ANTISEPTIC SOAP**, and **FOR GENERAL FAMILY USE**.

An easy test of its effectiveness is, that it at once and completely removes the odour of Tobacco Smoke.
See that each Cake bears our registered Trade Mark.

Sold in Tablets, 6d.; or in Boxes, containing 3 large Tablets, 1s. 6d. per Box.

SOLE MANUFACTURERS—

FERRIS, BOORNE, TOWNSEND & BOUCHER,
Wholesale and Export Druggists and Chemists to the **QUEEN, BRISTOL,** And may be procured through all Chemists.

LONDON AGENTS—Messrs. LYNCH & Co., 171A Aldersgate Street, E.C.; Messrs. WM. EDWARDS & SON, 157 Queen Victoria Street, E.C.

BY ROYAL



LETTERS PATENT.

SPOROKTON

(TUSON'S PATENT),

The best combined Volatile and Non-Volatile

DISINFECTANT,

DEODORISER AND ANTISEPTIC. Manufactured by

SUTTON & PHILLIPS, STOWMARKET, SUFFOLK.

LONDON DEPOT—WHITE HORSE YARD, 100 HIGH HOLBORN.

CIRCULARS FREE BY POST ON APPLICATION.

CHAMBERS' ENCYCLOPEDIA says: "The most powerful of disinfectants is Chloride of Lime."—See Article on Disinfectants.



CHLORIDE OF LIME,

IN WATERPROOF, AIRTIGHT, & ODOURLESS PACKAGES.

Protected by Royal Letters Patent.

Is neat and clean, and convenient for use. Being airtight and odourless, retains its strength unimpaired.

It is admirably adapted for Export, and will keep for years in any climate.

In 1-lb., 4-lb., and 11-lb. Packages, packed into 24-lb. Boxes and 50-lb. Cases, each separately, or the three sizes assorted in each Box or Case. Also in Penny Packages, packed in 1-gross Boxes. Packed also into 1-cwt. and 1/2-cwt. Cases, to meet the requirements of the Export Trade and large buyers.

The Wholesale Trade and Shippers only supplied, and a Liberal Discount given. Samples and Terms on application.

WHOLESALE AGENTS:—S. MAW, SON & THOMPSON; BURGEOYNE, BURBIDGES & CO.; BARCLAY & SONS; WM. MATHER, London and Manchester; JAS. WOOLLEY, SONS & CO.; Manchester; EVANS, SONS & CO., Liverpool; or may be had of any other Wholesale Druggist or Shipper.

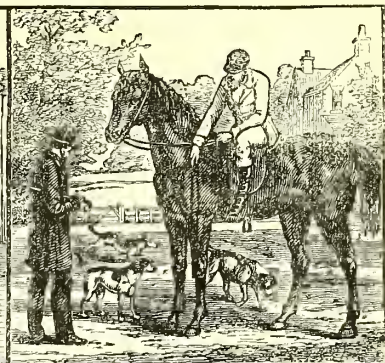
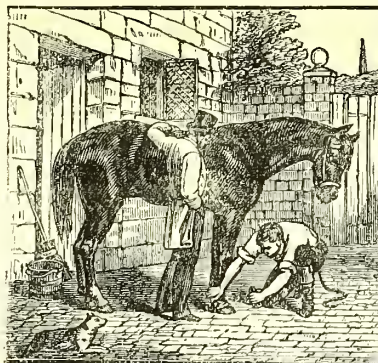
NATIONAL CHEMICAL CO., 55 PITFIELD STREET, LONDON, N.

ELLIMAN'S ROYAL EMBROCATION
IN BOTTLES 2s 2s6^d & 3s6^d EACH

A CERTAIN CURE FOR

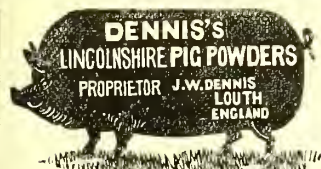
Sprains, Cuts, Splints,
Sore Backs, Sore Shoulders,
Sprung Sinews, Overreaches,
Chapped Heels,
Windgalls, Lameness,
Indisposition.

Prepared by **ELLIMAN, SONS & CO., STORCH.**
ELLIMAN'S ROYAL EMBROCATION
is used in most Stables and in the Stables of the Masters of
Stag and Fox Hounds; among others—Baron Rothschild,
Wentmore, near Leighton Buzzard; Earl of Macclesfield,
The Marquis of Houdy; Hon. R. Balfie Hamilton, M.P.;
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Earl of Shannon; Earl of Eglington and Winton; J. T. D.
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Lame Hunter. (Trade Mark.) The Royal Hunter Cured.
ELLIMAN'S ROYAL EMBROCATION.

DENNIS'S CELEBRATED LINCOLNSHIRE PIG POWDERS

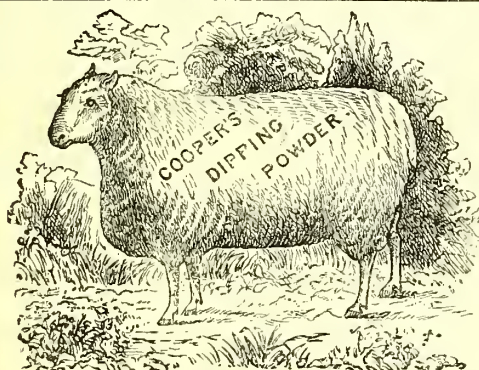


TRADE MARK. NO. 14389.

THESE Powders have now been before the Public for Ten Years. The large and increasing sale, together with the numerous testimonials constantly being received, prove that the public are fully alive to the fact that they are the **BEST MEDICINE** for **DISEASES** to which **PIGS** are subject and are also the best **CONDIMENT** known. They have an immense sale wherever introduced, and the Proprietor is desirous to assist all who will undertake to keep them in stock by supplying them with Show Cards, Posters, and Counter Bills with name and address thereon. They are put up in Penny Powders, each Powder a full dose; but are almost invariably sold in Packets containing Six and Twelve Powders to Retail at Fivepence and Tenpence. Retailers will be charged 40/- per Gross for Fivepenny, and 80/- per Gross for Tenpenny Packets, less usual discount, by

Hovenden & Son, W. Mather, Newbery & Son, and W. Edwards & Son, London; Lofthouse & Co., Hull; Raimes & Co., York; or from the Proprietor,

JOHN W. DENNIS, CHEMIST, LOUTH, LINCOLNSHIRE, ENGLAND.



COOPER'S SHEEP DIPPING POWDER

Is soluble in Cold Water, and should be used in preference to any other Dip,

FOR TICKS, FLY, SCAB, AND FOR ALL OTHER SHEEP DIPPING PURPOSES.

This Dip has been in use upwards of 35 years, and has never been equalled by any other; it is of uniform strength, does not stain the wool, and is equally good as a Summer or Winter Dip. It is especially recommended for Dipping Lambs, and as a certain Cure for Scab.

In Packets to Retail at 1s. 4d. each, for 20 Sheep.

Counter Bills and Directions in English, Spanish, Dutch, &c., may be had free on application.

Terms and all particulars may be had of the Proprietor,
WILLIAM COOPER, M.R.C.V.S., Chemical Works, Berkhamstead, Herts.

COOPER'S WHEAT DRESSING

FOR
PREVENTING SMUT IN WHEAT,
Promoting the Germination of the Seed,
AND
PROTECTING IT FROM ALL INSECTS.
In Packets, price 6d., sufficient for 6 Bushels of Wheat.

COOPER'S CARBOLIC SEED PROTECTOR

(NON-POISONOUS)
PREVENTS SMUT IN WHEAT,
AND THE RAVAGES OF
ROOKS, GAME, AND INSECTS.

This Powder dissolves in Cold Water and is easily used, and is suitable for every description of Seed. It prevents Birds and Slugs from eating the seed, but is perfectly harmless to Game and Poultry and to those using it. It does not contain any Poisonous ingredient. No other Dressing of any kind is required, and no other will be found to give such general satisfaction as this.

In Packets (with plain Directions), price 6d., sufficient for 4 Bushels of Seed.

Counter Bills, Posters, &c., with Agent's Name, may be had post free on application.

Terms and full particulars may be had of the Proprietor,
W. COOPER,
Chemical Works, Berkhamstead, Herts.



THE SANITARY FLUID



ANTISEPTIC DISINFECTANT for Preventing Epidemics and Destroying Infectious Diseases, as supplied to the Royal Arsenal, Woolwich. This Fluid is a powerful Antiseptic, Disinfectant, and Deodoriser, and from its harmlessness may be applied in any direction without any ill effects, and with the best possible results. THE "PRINCESS ALICE" CALAMITY.—The Sanitary Fluid was used at the Woolwich Dockyard for Disinfecting over 600 Bodies. The Clothing taken from the Bodies and over 500 Sheets were also Disinfected in large Cauldrons, also the Building, Yards, &c., giving the greatest satisfaction to the Dockyard and Parish Authorities. The work was carried out under the superintendence of Mr. HARMER.

TESTIMONIAL.—"H.M. Dockyard, Woolwich, September 23, 1878. Sir,—I beg to inform you that I consider your Disinfectant, as applied in the Dockyard both to buildings and clothing after the removal of the dead from the premises, very efficacious, and, from its cleanliness and absence of smell, very superior to the Disinfectants in the form of powder generally used.—Faithfully yours, J. T. BARRINGTON, Assistant Commissary General. Mr. Harmer, Stratford, E." For Asylums, Schools, Sanitary Authorities, Railway and Dock Companies, Workhouses, Shipping, Stables, Cowhouses, Cattle in transport, &c. Price 1/ per bottle; 3/6 per gallon; large quantities at a cheaper rate, of the Sole Manufacturer, W. J. HARMER, West Ham Lane, Stratford, E., or through Agents.

The MAGIC FLUID for General Household Purposes, price 1/6 per gallon. Write for Pamphlet, with Testimonials, &c. NON-POISONOUS.

SIDDALL'S CELEBRATED BEETLE POWDER!!

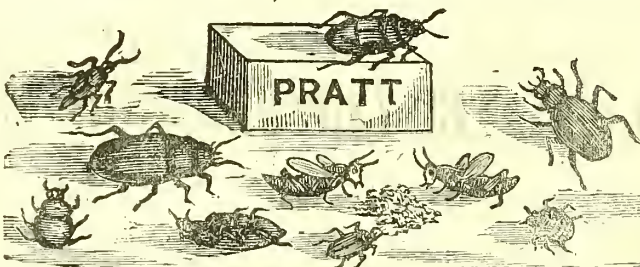
NO ADVANCE IN PRICE, BUT CHEAPER THAN EVER!!

Death to Beetles!!

Death to Cockroaches!!

Death to Crickets!!

3d., 6d., and 1s. packets.



Death to Black Cocks!!

Death to Bugs!!

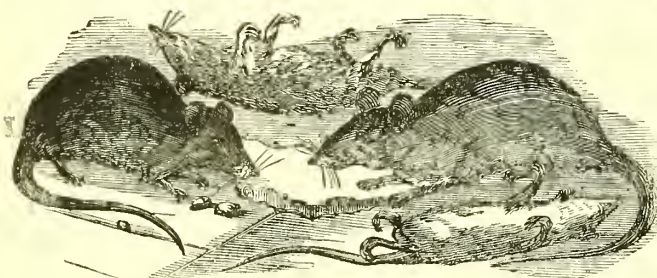
Death to Fleas!!

3d., 6d., and 1s. packets.

Has been established for more than Thirty Years, and is an excellent and most satisfactory Insecticide for the destruction of household pests—such as Black Cocks, Beetles, Crickets, Fleas, &c.

Sole Proprietor—HENRY J. PRATT (late SIDDALL), Pharmaceutical Chemist, YORK.

BATTLE'S VERMIN KILLER. { Mice eat it readily, and Die on the spot.



Has an immense Sale, and wherever introduced never fails to give satisfaction.—Mice appear attracted to it as by magic, eat it readily, tumble over, and die on the spot. Rats usually die in their runs.—Parties troubled with Vermin may be cleared at once, either from Stacks, Houses, or Ships.

TESTIMONIALS.—Thousands might be published. From Mr. THOMAS COLTON, Agent for Selby.—A friend of mine purchased a Packet of your VERMIN KILLER last night, doubting its efficacy; to-day he called in to say that he had found fifteen dead mice, and had only used part of a packet.—From Mr. EDWARD STURDY, Flemington Mills.—I duly received by post the Packet of your VERMIN KILLER, and found it as represented in your advertisement. It speedily destroyed all the mice in my granary. I enclose 2s. for two more Packets.—Leeds, November 6th, 1857.—I have tried BATTLE'S VERMIN KILLER, and have found it most effectual in clearing my premises of LARGE QUANTITIES OF RATS.—THOMAS S. CROSLAND.—Mr. Stead.

Sold in Packets, 3d., 6d., and 1s. each.

SOLE PROPRIETOR:

Mr. J. R. BATTLE, Chemist, Lincoln, England.

No Chemist or Storekeeper should be without a supply.

PURE LEICESTERSHIRE LEAF LARD, especially prepared for Pharmaceutical use, in 10-lb. air-tight tins, 6d. per lb.; also in 1, 2 and 3 cwt. casks, 42s. per cwt.; slightly tinged lard for sheep and cattle ointment, 37s. per cwt.; finest lard oil, 3s. 9d. per gallon; fine neatfoot oil, 4s. per gallon; Cooper's "Excelsior" machine oil, 2s. 7d. per gallon; an excellent lubricant for light machinery, 2s. per gallon; dark lubricant, 1s. 10d. per gallon. The Trade only supplied. Apply, J. Cooper, Lard and Oil Merchant, Church Gate, Leicester.

CHEMISTS' TEA AGENCY.

BROKEN-LEAF TEA, 1s. 8d. per lb.

A Money-saving Tea, absolutely pure, in half-pound packets 10d. The small leaf from fine India and China Teas, stronger, richer, and cheaper than any whole-leaf tea. Wholesale to Dealers and Sellers and Agents, 40lbs. sent free to any railway station in the kingdom.—**WALKER & DALRYMPLE**. Warehouses—154 and 155 Whitechapel Road, London. P.O.O. payable at Head Office. Bankers—The National Provincial Bank of England. N.B.—Samples posted free.

MORGAN'S PATENT CRUCIBLES



HAVE RECEIVED AT EACH EXHIBITION the HIGHEST AWARD made for CRUCIBLES. The quality is uniform, withstanding the greatest heat without danger, and they never crack. Porous Battery Cells, &c., are manufactured by

THE PATENT PLUMBAGO CRUCIBLE COMPANY,

TRADE MARK.

BATTERSEA WORKS, LONDON, S.W.

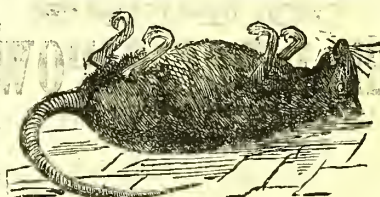
100 Rats destroyed for a Shilling by BARBER'S PHOSPHOR PASTE.

WRAPPED NEATLY FOR THE COUNTER.

You would never sell any other if you were desirous of pleasing your Customers.

CATS AND DOGS WON'T EAT IT.

Kills Rats, Beetles, &c. THE DEAD VERMIN DRY UP WITHOUT SMELL.



Guaranteed the best destroying Paste in the world.

3d., 6d., 1s., 2s. 6d., and 5s. Tins. Also

BARBER'S VERMIN KILLER.

Kills Mice upon the spot. In packets, 3d., 6d., and 1s.

Testimonial from Her Majesty's Ratcatcher.

"Hampton, Middlesex, May 25th, 1870.—I have been more than forty years employed at Hampton Court Palace, the Royal Stables, and other buildings in and around the Royal Parks, for the destruction of rats, mice, and other vermin, and after trying all the rat poisons which I have heard of, I now use BARBER'S PHOSPHOR PASTE and VERMIN KILLER, with which alone I am able to keep these ancient palaces and national works free from vermin. (Signed) CHARLES SHONES."

WORKS, SALISBURY: ESTABLISHED 1848.

Special Quotations to Shippers. Supplied by all the London Wholesale Houses.

HORSE, CATTLE, AND SHEEP MEDICINES.



By Special Warrant,
Dated 27th December, 1865.

BY ROYAL APPOINTMENT.

DAY, SON & HEWITT,

INVENTORS AND SOLE PROPRIETORS OF THE



By Special Warrant,
Dated 10th February, 1866.

'ORIGINAL' STOCK BREEDERS' MEDICINE CHESTS,

For all Disorders in Horses, Cattle, Calves, Sheep, and Lambs.

Patronised for over 40 years by Royalty, and the principal Stock Breeders, Horse Proprietors, and Agriculturists of the British Empire.

The No. 2 MEDICINE CHEST contains the following matchless remedies:—

"CHEMICAL EXTRACT," for all External Injuries, and Ewes Lambing.

"GASEOUS FLUID," for Colic, Scour, or Diarrhoea, and Debility.

"RED DRENCH," for Cleansing Cows and Ewes, and for Inflammation.

"RED PASTE BALLS," for Mares after Foaling, and Conditioning Horses.

"BRONCHOLINE," for Husk or Hoose in Sheep, Lambs, and Calves.

"GASEODYNE," for Heaving and Paining, "CARMINATIVE CHALK," &c.

Price of Chest, with Guide to Farriery, £2 16s. 6d. No. 1 Complete Medicine Chest, in Polished Case, £6s. 6s.

Horsekeeper's Chest, No. 4, £2 17s. 6d.

CARRIAGE PAID TO ALL PARTS.

Admirably adapted for all ordinary ailments among Stock, and each preparation can be had separately. Full and easy directions enclosed.

Patronised by Royalty and the leading Agriculturists of the British Empire, and awarded "Certificate of Merit" by the National Agricultural Society of Victoria, Australia, Spring Exhibition, 1871; President's Medal at the Spalding Show, July, 1872; Silver Medal, Manchester and Salford Show, November, 1874; Silver Medal, Preston Agricultural Show, June, 1875; Silver Medal, Northamptonshire Agricultural Society, Stamford Show, September, 1875; Silver Medal, Cheshire Agricultural Society, Crewe Show, September, 1875; Special Prize, National Agricultural Society of Victoria, Australia, Spring Exhibition, November, 1875; Medal, Cheshire Agricultural Society, Cheshire Show, 1876; Silver Medal, South African Exhibition, Cape Town, 1877; Silver Medal, Northumberland Agricultural Society, Newcastle-on-Tyne Show, August, 1877; Silver Medal, Knutsford Show, July, 1878; Medal, North Berwick Show, July, 1878; and Medal, Dairy Show, London, October, 1878.

CAUTION.—Beware of low-priced Imitations, and see that the name of DAY, SON & HEWITT is on all Bottles and Packets.

Prepared only by DAY, SON & HEWITT, 22 DORSET STREET, BAKER STREET, LONDON, W.

And sold by Messrs. Burgoyne, Burdidges & Co., Barclay & Sons, W. Edwards, Newbery & Sons, Sanger & Sons, and all Wholesale Druggists, in London; Hood & Co., Melbourne; Kempthorne, Prosser & Co., Dunedin and Auckland; Fairthorne & Co., Launceston.

R H O D E S' CURATIVE AND CONDITION MIXTURE FOR DOGS,

Especially recommended to the Nobility, Master of Hounds, Hunting Men, and Dog Fanciers.

The best known Remedy for the effectual Cure of Distemper, Worms, Vomiting, Diseases of the Skin, will promote Appetite and Condition, giving a smooth coat and a healthy condition. Eulogised in terms of the highest approbation by all who have tried it as a cure and prevention (which is better than cure).

"Caractacus," in the *Sportsman's Journal*, April 12, 1879, in his article on the Rearing of Young Dogs, &c., says, in speaking of the various remedies for the different Diseases of Dogs, "In all fairness we must not omit Mr. Rhodes' Mixture, which I have tried on many occasions and never knew it to fail."

Sold in Bottles, at 1s., 2s. 6d., and 4s. 6d.; for the use of large kennels in Tins at 25s., containing twelve 2s. 6d. bottles; and 45s. Tins, containing twenty-four 2s. 6d. bottles—A GREAT SAVING. The Tins forwarded CARRIAGE PAID to all parts of the United Kingdom upon receipt of the amount.

May be obtained from the principal Wholesale Houses, or the Proprietor and Inventor,

JOSEPH RHODES, Chemist, East-thorpe, Mirfield.

Dr. BILLING'S INSTANTANEOUS DISINFECTANT & DEODORIZER IS THE MOST RELIABLE AND THE CHEAPEST IN THE WORLD.

Harmless to furniture and linen. Does not stain. Harmless, colourless, and Odourless, but powerful! It instantly deodorises and disinfects any material it is applied to, no matter how fetid or offensive! Destroys and neutralises instantly all poisonous gases, arrests decomposition, and prevents contagion. Reliable and safe in the sick chamber, the hospital, and for all sanitary purposes.

ONLY ONE QUALITY—THE BEST!"
In 1s. and 2s. bottles, sufficient to make two gallons of the best and cheapest disinfectant in the world.

Special prices by the gallon or quantity.

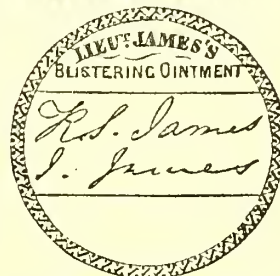
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HORSE AND CATTLE CONDIMENT.

WANTED, Chemists and Druggists with a trade amongst Farmers, as AGENTS for one of the best and cheapest CONDIMENTS made. Wherever introduced it is largely sold, and the demand for it steadily increases.

Apply to SLATER BROS., CARLISLE.

ESTABLISHED 1833. HORSES.—LIEUT. JAMES'S BLISTER.



CAUTION.

The annexed Label is at the top of every Pot of the ORIGINAL and only GENUINE BLISTER.

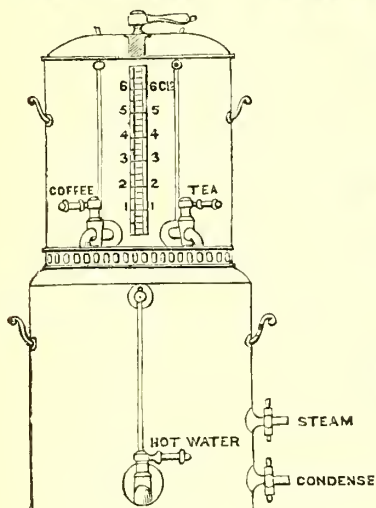
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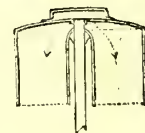
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R. S. JAMES, 31 Years Sole Manufacturer, STANFORD, FARINGDON, BERKS.
Advertised in 'Bell's Life' 45 years. Beware of a Spurious Imitation.

ETZENSBERGER'S PATENT STEAM COFFEE AND TEA FILTER.



Apparatus for making Extracts of Substances by Steam Pressure, for the use of Large Establishments, Steamers, Hotels, Coffee Taverns, Restaurants, and Cafés; also for Chemists to make Extracts or Infusions of Substances.



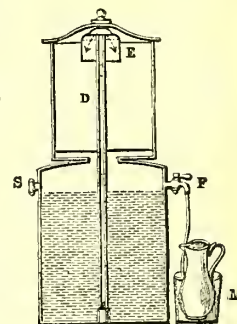
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On the same principle for Family use.

Great Economy, Excellent Aroma, Perfect Safety, and Cleanliness.

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SPECIAL NOTICE TO DRUGGISTS.

Increase your Business by Selling the ORIENTAL COMPANY'S TEA.

IN SUBMITTING THEIR TEAS to Agents, the above-named Company desire to offer the following remarks:—

THE PROPRIETORS have been long connected with the EAST, as IMPORT and EXPORT MERCHANTS, and, with the means at their command, are enabled to avail themselves of their experience in purchasing at the proper season, from the best markets, and direct from the TEA PLANTERS, thereby securing the choicest pickings, and saving all intermediate profits between producer and consumer.

THE TEAS being thus bought are carefully cut, sifted, and mixed by the most improved machinery, under the superintendence of a PRACTICAL TEAMAN, whose whole study has been devoted to the ART OF BLENDING TEAS to suit the Tastes of the general public; and it may be added that it is greatly due to judicious blending that the COMPANY'S TEAS have acquired the position they now hold.

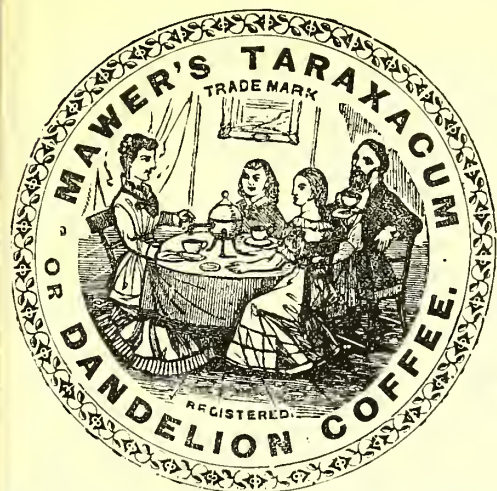
INDIAN TEAS have within the last few years obtained such favour with connoisseurs for Strength, Aroma, and Delicacy of Flavour, that THE ORIENTAL COMPANY have introduced, as a SPECIALTY, a blend of these fine Teas, the sale of which has attained such proportions as to warrant the assertion that it produces the most delicious beverage ever offered to the public.

THE TEAS are packed in specially-prepared wrappers, with TINFOIL LINING, in $\frac{1}{4}$ -lb., $\frac{1}{2}$ -lb., and 1-lb. Packets; 5-lb., 10-lb., and 20-lb. Tins; 20-lb. Boxes, Half-chests, and Chests; and retailed as under.

Fine China Blended Tea, Magenta Label					Retail at	2/0 per lb.
Finest	"	Blue	"	"	"	3/0 "
Fine Indian	"	Green	"	"	"	2/6 "
Finest	"	Yellow	"	"	"	4/0 "

For Terms of Agency and other particulars apply at the Office—

418 OXFORD STREET, LONDON, W.



MAWER'S TARAXACUM OR DANDELION COFFEE

Prepared from the Fresh Root.

Notwithstanding the many attempts to imitate this incomparable preparation, Mawer's manufacture continues to rise rapidly in public estimation, and the sales have of late immensely increased. Wherever it is introduced it meets with increasing appreciation and continuous sales, for beyond doubt it excels all in quality, strength, aroma, and cheapness.

Chemists everywhere find this the most saleable article of the name. It is neatly packed in air-tight tins, and is spoken well of throughout Great Britain and several of our Colonies. To be had from all London Patent Medicine and Sundry Houses, and direct from the Maker in Tins, 6d., 9d., 1s., 1s. 6d., and 2s. Write for terms to

EDWARD MAWER,
Chemist,
HIGH WYCOMBE, BUCKS.

Sold by Chemists everywhere.

Handbills and Show Cards supplied gratis.

BRANSON'S COFFEE EXTRACT,

For the Immediate Production of Fine and Pure Coffee.

Owing to completed improvements in its manufacture

BRANSON'S COFFEE EXTRACT

now specially prepared for use in hot climates, and is **Guaranteed** not to become oxydised nor fermented in any change of temperature. It is economical in use, there is no waste, and its permanent stimulant properties are more valuable than those of alcohol. Sold by all chemists in bottles at 1s. and 2s. each.

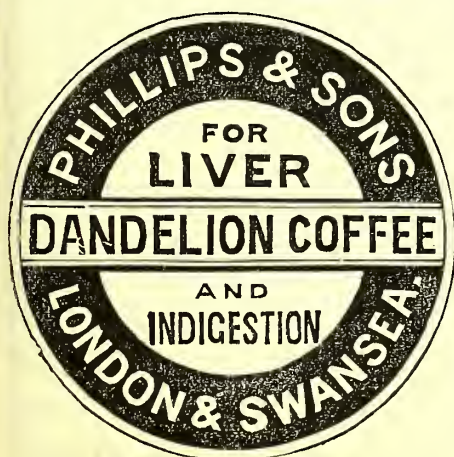
Wholesale Agents: Barclay & Sons, W. Edwards & Son, J. Sanger & Sons, F. Newbery & Sons, Lynch & Co., London; McMaster, Hodgson & Co., Dublin; Hasletts & Co., Belfast; J. Mackay & Co., Edinburgh, Scotland; Goodall, Backhouse & Co., Leeds.

BROOK & CO.'S DANDELION COFFEE

IS the Best and the Cheapest, containing three times the strength of ordinary Coffee. The above is highly recommended by the Medical Faculty as an Agreeable, Palatable, and Medicinal BEVERAGE. See Reports from Dr. Hassall, M.D., Author of "Food and its Adulterations," &c.; also, Otto Hehner, F.C.S., Analyst. Sold in Tins, 6d., 1s., 1s. 9d., by most respectable Chemists. Wholesale Agents: Goodall, Backhouse & Co., Leeds; Wm. Mather, London; Jas. Woolley, Son & Co. and W. Mather, Manchester; H. Glover, Son & Co., Bradford; and all Wholesale Houses.

Caution—See you get **BROOK'S**, as inferior qualities are often substituted.

MAKERS—BROOK & COMPANY, 76 HANOVER STREET, MANCHESTER.



ESTABLISHED 1760.

Contains three times the strength of ordinary Breakfast Beverages.

ONCE TRIED ALWAYS USED.

The valuable properties of the Dandelion Root, recognised by eminent Physicians for many centuries, has now become an article of daily use.

Sold by all Chemists throughout the Kingdom in Tins at 1s. 6d., 1s., 9d., and 6d.—Price Lists on application to the Manufacturers.

PHILLIPS & SON,
CASTLE SQUARE, SWANSEA,

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OR OF
JAS. WOOLLEY, SON & CO., Manchester.
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EVANS, SONS & CO., Liverpool, &c.
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HONOURABLE MENTION, INTERNATIONAL EXHIBITION, 1862.

ISINGLASS

Of every description, suitable for CHEMISTS, GROCERS, BREWERS, WINE COOPERS, &c., imported and cut by

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Orders accompanied by a remittance executed as under—

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No. 1, 13/- per lb.; No. 2, 11/6 per lb.;
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No. 1, 5/9 per lb.; No. 2, 4/9 per lb.;
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PACKED IN SMALL BOXES. 1s. per lb. EXTRA.

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Wholesale Price
Lists, Opinions
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will at all times
be given direct,
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Patent Medicine
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NESTLE'S MILK FOOD,

For Infants, Children, and Invalids.

London Depot—7 BARBICAN, E.C.

NESTLE'S MILK FOOD is prepared at Vevey, Switzerland, from the pure milk of Alpine fed cows, the finest wheaten flour and sugar, combined in exact proportions to imitate closely the natural food for infants. It is thoroughly cooked, and reduced to a fine powder, perfectly soluble in water, requires only the simple addition of water to prepare it for use—in this respect having the advantage over all other foods.

NESTLE'S MILK FOOD is highly recommended by the best medical authorities in all parts of the globe as a perfect diet.



Nestle's is the original and genuine Milk Food or Powder. The extensive demand for this Food, its well known superiority and universal recognition by the medical profession, have produced the inevitable imitations. The trade and the public are hereby cautioned. Nestle's Milk Food has stood the test of years. Take no other under any pretence whatever.

NESTLE'S MILK FOOD is put up in tins, packed in lined cases specially for the export trade. Is highly concentrated and in a perfectly dry state. Will keep good in any climate.



Our Wholesale Agents at any port will pack and ship the Food to or for any part of the world.

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ingham
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John Mackay, Edinburgh
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W. & R. Hatrick & Co., Glasgow
McMaster, Hodgson & Co., Dublin
Grattan & Co., Belfast
McMahon, Day & Co., Limerick
A. Demarchi Bros. & Co., Buenos
Ayres, Monte Video, and Rosario

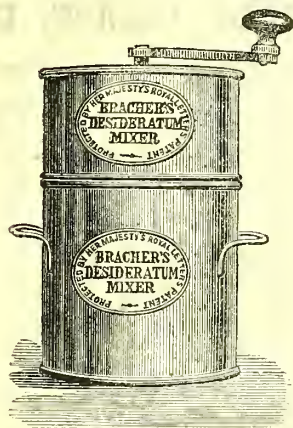
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THE "DESIDERATUM" MIXING MACHINE.

BRACHER'S PATENT.



Nos. I. to IVa.

These Machines are admirably adapted for mixing all kinds of powders, heavy or light, in the shortest possible time, thereby superseding to a great extent the use of the Pestle and Mortar, and supply a long-felt want amongst Chemists and Druggists, Grocers, Confectioners, Drysalts, Colour Merchants, and Manufacturers.

They are durable, easily cleaned, portable, require no fixing (except in the case of large sizes), can be worked either *with* or *without* the cover, and are, without doubt, the best and cheapest Mixing Machines ever invented.

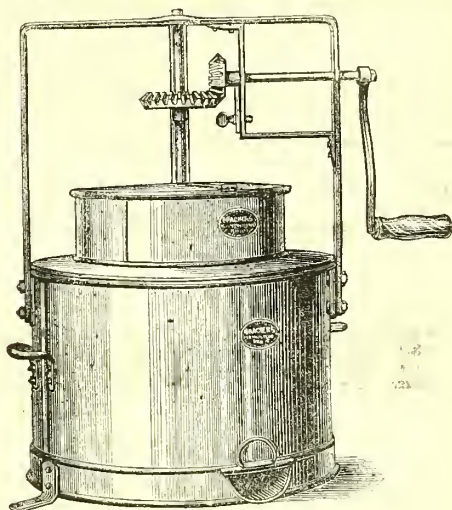
Every Retail Chemist and Druggist, Grocer and Confectioner, should possess one of these little Machines, as the small outlay would be soon repaid in the saving of time and trouble, indeed it would scarcely be thought possible that the articles could be so thoroughly blended in such an incredibly short time.

The Nos. 3, 4, and 4a are for mixing Baking Powder, Coffee and Chicory, Sherbet, Lemon Kali, &c., &c., and will blend from 1 lb. to 500 lbs. per hour. The large sizes are used by Wholesale Druggists, Confectioners, Drysalts, Sherbet and Lemon Kali Manufacturers, and all who have large quantities to mix.

See the CHEMIST AND DRUGGIST of March 15, 1879; also the GROCER AND OIL TRADE REVIEW of April 12, 1879.

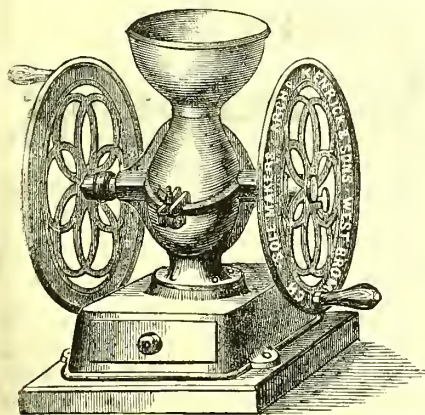
Further particulars on application to the Manufacturer,

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Nos. V. and VI.

FOR
MIXING
ALL
Descriptions
OF
POWDERS.



AMERICAN DRUG & SPICE MILL.

Advantages—

The cutters or grinders never wear out. Cutters or Grinders can be cleaned and refixed in one minute, thus any quantity of different articles can be ground without fear of intermixture.

Price No. 4a Mill, 70/-

Price No. 2a Mill, 26/-

" " 3a " 50/-

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American Tincture Presses, 8/-, 12/-

Larger size if required.

See PHARMACEUTICAL JOURNAL, November 17, 1877, page 399.

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221, 223, 226, 232 St. John Street, Clerkenwell.

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WHITBREAD & CO.'S

LONDON COOPER, STOUTS, AND ALES.

THE BOTTLED ALES AND STOUT OF MESSRS. WHITBREAD & CO.

We have received samples of several varieties of malt beverage—as pale ale, family ale, and strong ale, London cooper, and extra stout—from Messrs. Whitbread & Co.'s Stores, 227 Gray's Inn Road. These beverages, being bottled on their own premises, possess a guarantee of genuineness that has long been desired, and is worthy of recognition. We have so far tested the samples as to be in a position to pronounce an opinion upon them. We believe them to be perfectly genuine, well brewed, and of excellent quality; they are free from acidity, well up, and in first-rate condition.—*The Lancet*, March 16, 1872.

PURE FLOUR OF EGYPTIAN LENTILS,

IN TINS OR IN BULK.

ESSEX FLOUR AND GRAIN COMPANY, LIVERPOOL ROAD, LONDON, N.

THE BEST PACKET TEAS

ARE SUPPLIED BY THE

Tea Supply Association,

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THE WATCH TEA.—Bonuses consist of Ladies' and Gentlemen's Watches with 14 and 28 pounds of Tea; also Clocks and Timepieces with 4, 6, 8, 10, 12, 18, and 24 pounds of Tea.

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THE T.S.A. GENERAL BONUS TEA.—Bonuses consist of a selection of nearly 500 Useful Articles, INCLUDING WATCHES, CLOCKS, and BOOKS, given with quantities of Tea varying from a Quarter-pound upwards.

Also **SURPRISE TEA**, containing a useful Bonus in every packet.

Also **THE IMPERIAL BLEND**, being a Non-Bonus Tea of first-class value, retailing at 2/-, 2/6, 2/8, 3/-, and 3/6 per pound.

AGENTS WANTED where none are already appointed. For particulars apply to G. BEAUMONT, Manager.

LA TROBE'S PURE SOLUBLE COCOA.



Supplied to Chemists only, all other Trades refused.

H. L. T.'s production stands entirely upon its own merits, as the Purest Cocoa manufactured.

That the Trade may have an opportunity of testing, H. L. T. sends samples for gratuitous distribution amongst the medical profession upon receiving from Agents a list of same.

Retailed in Canisters,

1s. and 2s.

La Trobe's
Pure Soluble Cocoa.

Also Manufacturer of

La Trobe's Highbury Bouquet,
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CHOICE PACKED TOBACCOS.

Best Birdseye, in $\frac{1}{4}$ lb. tins; also $\frac{1}{4}$ lb., $\frac{1}{8}$ lb., $\frac{1}{16}$ lb. packets.

Superfine Birdseye, in $\frac{1}{4}$ lb. tins; also $\frac{1}{4}$ lb., $\frac{1}{8}$ lb., $\frac{1}{16}$ lb. "

Imperial Birdseye, Foil, 2 oz., 1 oz.

"Yellow Honey from Down South." } In $\frac{1}{4}$ lb. tins; also
This Tobacco is the most highly esteemed in the States. } Foil, 2 oz., 1 oz.

"Virgin State," Selected from the Finest Virginia Leaf. } In $\frac{1}{4}$ lb. tins; also
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Superfine Oriental Returns, } In $\frac{1}{4}$ lb. tins; also
A Mild Smoking Tobacco. } Foil, 2 oz., 1 oz.

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PACKED SHAG.

Superfine Shag $\frac{1}{4}$ lb., $\frac{1}{8}$ lb., $\frac{1}{16}$ lb.

Fine Shag $\frac{1}{4}$ lb., $\frac{1}{8}$ lb., $\frac{1}{16}$ lb.

Fine Ragg $\frac{1}{4}$ lb., $\frac{1}{8}$ lb., $\frac{1}{16}$ lb.

For Retailing at 8d. per oz. { Good Shag $\frac{1}{8}$ lb., $\frac{1}{16}$ lb., $\frac{1}{32}$ lb.

{ "Old Honest" $\frac{1}{8}$ lb., $\frac{1}{16}$ lb., $\frac{1}{32}$ lb.

{ "Uncle Tom" $\frac{1}{8}$ lb., $\frac{1}{16}$ lb., $\frac{1}{32}$ lb.

{ "Aunt Chloe" $\frac{1}{8}$ lb., $\frac{1}{16}$ lb., $\frac{1}{32}$ lb.

E. & W. ANSTIE,
MANUFACTURERS,
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ESTABLISHED ONE HUNDRED AND FIFTY YEARS.

E. LAZENBY & SON'S PICKLES,

Sauces, and Condiments.—E. LAZENBY & SON (6 Edwards Street, Portman Square), Sole Proprietors of the Celebrated Receipts, and Manufacturers of the Pickles, Sauces, and Condiments so long and favourably distinguished by their name, beg to remind the Public that every article prepared by them is guaranteed as entirely unadulterated. Manufactory, 18 Trinity Street, London, S.E.

HARVEY'S SAUCE.—CAUTION—The admirers of this Celebrated Sauce are particularly requested to observe that each bottle prepared by E. LAZENBY & SON bears the label used so many years, signed "ELIZABETH LAZENBY."

Gold Medal, Paris Exhibition.

FRY'S COCOA EXTRACT,

IN PACKETS AND TINS.

Pure Cocoa only, with the superfluous oil extracted.

This pure and delicious Cocoa, consisting exclusively of choice Cocoa Nibs from which the superfluous oil has been extracted, is strongly recommended to all who appreciate the full flavour and fine aroma of Cocoa.

"If properly prepared, there is no nicer or more wholesome preparation of Cocoa."—*Food, Water, and Air*, Edited by Dr. HASSALL.

J. S. FRY & SONS, BRISTOL & LONDON.

TRY ALSO

FRY'S CARACAS COCOA.—"A delicious preparation."

MUSTARD.**FINCH, RICKMAN & CO.'S**

Genuine Qualities

Are made from the finest mustard seeds only. Their compounds, as manufactured for upwards of a century, are guaranteed free from all ingredients imparting spurious heat, and are therefore equally suitable for both table and medical purposes.

6 Broken Wharf, Upper Thames St., London.

THE WANT OF THE DAY.

Registered.



1d., 3d., & 6d.

MAKES STARCH LINEN AS NEW.

Starched Linen is made to Iron Easier, and is unequalled for Stiffness and Gloss. Sold by most starch sellers, at 1d., 3d., and 6d. each. Wholesale by the Proprietor,

T. CRITCHLEY,

CHEMIST & WHOLESALE DRUGGIST
BLACKBURN.

CAUTION!—Makers and Sellers of imitations will be prosecuted.

SEVEN PRIZE MEDALS AWARDED.

**GOODALL'S
HOUSEHOLD SPECIALITIES.****Goodall's
Yorkshire Relish**

THE MOST DELICIOUS SAUCE IN THE WORLD.

This cheap and excellent Sauce makes the plainest viands palatable, and the daintiest dishes more delicious. To Chops and Steaks, Fish, &c., it is incomparable. Sold by Grocers, Oilmen, Chemists, &c., in Bottles, 6d., 1s., and 2s. each.

Over FOUR MILLION (4,000,000) Bottles Sold Annually.

LARGEST SALE OF ANY SAUCE IN THE WORLD.

CAUTION.—On each Yorkshire Relish Label is our Trade Mark, Willow Pattern Plate, and name, GOODALL, BACKHOUSE & CO., No other is genuine.

**Goodall's
Baking Powder**

THE BEST IN THE WORLD.

The cheapest, because the best, and indispensable to every household, and an inestimable boon to housewives. Makes delicious Puddings without eggs, Pastry without butter, and beautiful light Bread without yeast. Sold by Grocers, Oilmen, Chemists, &c., in 1d. Packets; 6d., 1s., 2s., and 5s. Tins.

**Goodall's
Quinine Wine**

The best, cheapest, and most agreeable tonic yet introduced. The best remedy known for Indigestion, Loss of Appetite, General Debility, &c. Restores delicate individuals to health and vigour. Sold by Chemists, Grocers, &c., at 1s., 1s. 1d., 2s., and 2s. 3d. each bottle.

**Goodall's
Custard Powder**

For making delicious Custards without Eggs, in less time and at half the price. Unequalled for the purposes intended; will give the utmost satisfaction, if the instructions given are implicitly followed. The Proprietors entertain the greatest confidence in the article, and can recommend it to Housekeepers generally as a useful agent in the preparation of a good Custard.

Delicious to Plum Pudding.

Delicious to Jam Tarts.

Delicious to all kinds of Puddings.

Delicious to all kinds of Fruit Pies.

Delicious to Stewed Rice.

Delicious to all kinds of Fruit.

Delicious to everything.

Delicious alone.

Sold in Boxes, 6d. and 1s. each, by Grocers, Chemists, Italian

Warehousemen, &c.

**Goodall's
Ginger Beer Powder**

Makes Three Gallons of the Best Ginger Beer in the World for 3d.

Is a delicious and invigorating beverage, possessing valuable medicinal properties. It is cooling in its nature, and a most wholesome beverage for both winter and summer. It is easily made, and is by far the cheapest and best Ginger Beer Powder ever offered to the public. Sold in Packets, 3d. and 6d. each, by all Grocers, Chemists, and Italian Warehousemen.

**Goodall's
Brunswick Black**

FOR PAINTING STOVES, GRATES, IRON, TIN, &c.

This invaluable composition is superior to any yet offered to the public, possessing great brilliancy, and thoroughly protecting the article it is applied to. Sold in Bottles at 6d. and 1s. each.

SOLE MANUFACTURERS,

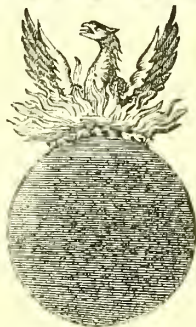
GOODALL, BACKHOUSE & CO., White Horse St., Leeds.

A Monthly Price List of Drugs, Chemicals, Druggists' Sundries, Patent Medicines, &c., can be had on application.

COLTHURST & HARDING,

TEMPLE GATE, BRISTOL,
IMPORTERS OF
Petroleum, Benzoline, Gasoline, Turpentine,
OLIVE, COLZA, COD, CASTOR, SEAL, WHALE, & SPERM OILS,
TALLOW, PITCH, TAR, ROSIN, &c.

MANUFACTURERS OF
WHITE LEAD, PAINTS, COLOURS, AND VARNISHES
OF ALL KINDS.
Soft Soap, Greases, Linseed
PAINTS IN TINS Meal, and Crushed Linseed.
MIXED FOR USE.



TRADE
Ball denotes

MARK.
Colour of Paint.

All Colours in 1, 2, 4, and 7 lbs.

VARNISHES OF ALL SORTS IN TINS OF ALL SIZES.

BENZOLINE,

THE PUREST & SWEETEST FOR BURNING & CLEANING.

LEON CLERC & CHARLES,

THE ORIGINAL DISTILLERS,

Warehouse & Offices—48 COMMERCIAL STREET, } LONDON.
Works—DAVEY ROAD, HACKNEY WICK,



PETROLEUM OIL, choice brands only sent out.
BURNING NAPHTHA at Market Prices.
GALVANIZED and TIN GOODS of all descriptions.
PARAFFIN, SPIRIT, and MODERATOR LAMPS.
GLOBES and CHIMNEYS for gas or lamps.
WOODEN TAPS, with square or round cork.

Book of Drawings and Prices sent free on application. Apply at 48 Commercial Street.

B. NEWHAM & CO., Castle Hill, SHEFFIELD.

SPECIALITIES—

CHLORIDE LIME in packets, 3 oz., 8s. per gross. Will keep in perfect condition for 12 months. PULV. SEM. LINI., our own Grinding and Warranted Pure, 21s. per cwt. EPSOM SALTS, in 1 oz. packets, 13s. per cwt. BRUNSWICK BLACK, 4s. 6d. per gall. ULTRAMARINE (Lime Blue), in packets, 28s. per cwt.

SPECIAL QUOTATIONS TO LARGE BUYERS

Natural Mineral Waters of "Apollinaris," "Hunyadi Janos," Vals,

Vichy, Carlsbad, Seltzer, Kissingen, Homburg, Pullna, Friedrichshall, &c., direct from the Springs.

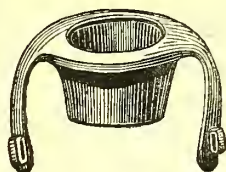
Also the ARTIFICIAL MINERAL WATERS prepared by Dr. STRUVE & CO., at the Royal German Spa, Brighton, and R. ELLIS & SON, Ruthin.

Appointed Agents for the celebrated "APOLLINARIS WATER."

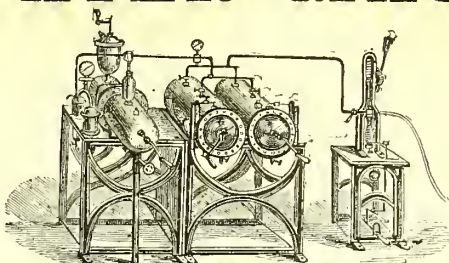
W. BEST & SONS, Foreign Wine, Spirit, and Mineral Water Merchants, 22 Henrietta Street, Cavendish Square, London, W

SODA-WATER MACHINERY.

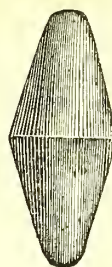
PATENT NOZZLE



FITS ANY BOTTLE.



CONE STOPPER.



BALL STOPPER.



SODA WATER MACHINE COMPLETE, WITH RACK.

DAVENPORT'S NOZZLE AND STOPPER is the best Patent for utilising old Bottles, and converting them into Patents. No Corks or Wire, and saving entire cost in one season. The New Nickel-plated Nozzle makes this the most attractive Patent in use. Trial allowed. Prices lowered. Send for Samples. New Bottles ready fitted for use now supplied. Catalogues of Soda-Water Machines, Ice-Making Machines, Engines, Boilers, Copper Cylinders, Syphons, Seltzogenes, Filters, &c., and all accessories to the Soda-Water Trade.

AGENTS FOR HAYWARD TYLER & CO.'S SODA-WATER MACHINERY.

" " BARRETT & ELSER'S Patent Stoppers in Lamont's Bottles.

Illustrated Catalogues, of sixty-four pages, post free to all parts of the World.

DAVENPORT & CO., Soda-Water Machinists and General Machinery Agents,
99N HIGH HOLBORN, LONDON.



LONDON, 1862.



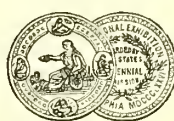
LONDON, 1873-74.



PARIS, 1867-78.



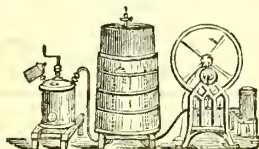
VIENNA, 1873.



PHILADELPHIA, 1876.



CAPE, 1877.



SODA WATER MACHINERY,

And all accessories connected with the business.

HANDSOME MARBLE COUNTER FOUNTAINS,

For dispensing Iced Fruit Drinks.

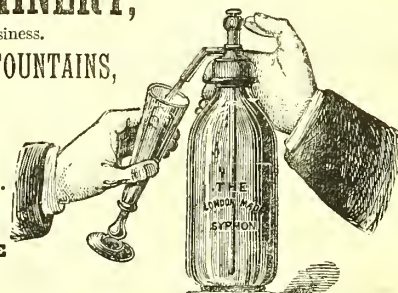
MACHINES FROM 30 POUNDS.

Sole Agents for Codd's Patent Globe-Stoppered Soda Water Bottles.

In use by over 500 established Soda Water Makers in England alone.

SOLE MAKERS OF THE IMPROVED LONDON-MADE SYPHON, 2s. each in quantities.

CATALOGUE FORWARDED FREE.



THE "LONDON-MADE" SYPHON.

BARNETT, SON & FOSTER, 23^T Forston St., Shepherdess Walk, City Road, London, N.

SODA WATER AND LEMONADE MACHINE,

TO MAKE ALL THE AERATED DRINKS.

WITH RECIPES AND INSTRUCTIONS FOR WORKING.

A Machine, with Dial and Water Gauges, to make 300 dozen per day	...	£30	0	0
Ditto ditto ditto 1,000 ditto	...	£40	0	0
Engine and Boiler to drive same	...	£30	0	0

PARTICULARS OF

N. G. WILCOCKS, Engineer, BATH.

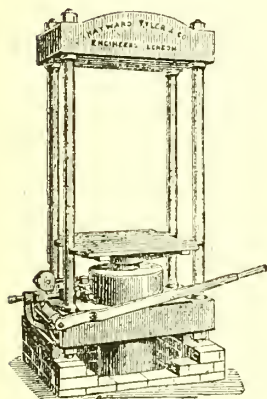
INDEX TO ADVERTISEMENTS,

See pages 33 and 34.

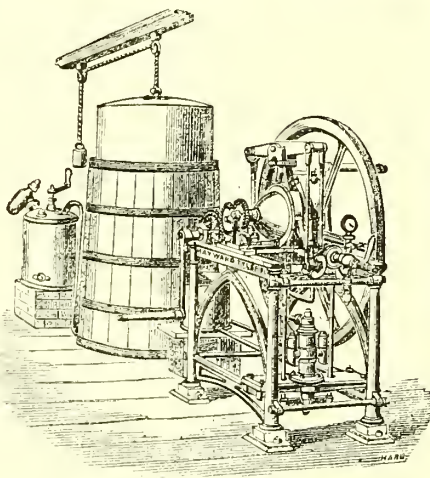
HAYWARD TYLER & CO.,

HYDRAULIC AND GENERAL ENGINEERS, AND THE OLDEST MAKERS OF

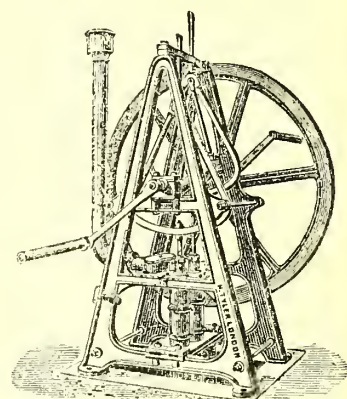
SODA WATER MACHINERY IN THE TRADE.



Hydraulic Press.



Bramah Continuous-process Soda Water Machine.



Strong Weir Engine Frame for Pumping.

84 85 WHITECROSS STREET, LONDON.

E. S. HINDLEY,
BOURTON, DORSET.

SMALL STEAM ENGINES

(Economical in Fuel and in First Cost).

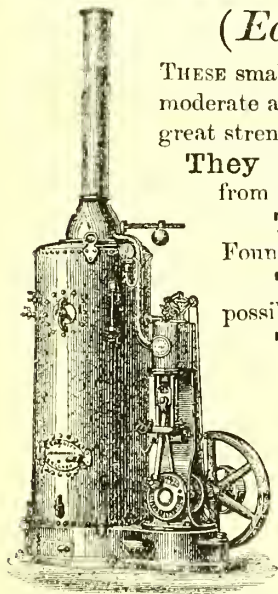
THESE small Engines are specially adapted for driving Soda Water Machinery wherever a moderate amount of cheap power is required. They combine simplicity, compactness, and great strength, are easily managed, occupy very little space, and require no fixing.

They are available at any time, as steam can be got up in half an hour from cold water.

They require no fixing, being erected on a Cast-Iron Water Tank Foundation.

They are simple in construction, and, having as few working parts as possible, are not likely to get out of repair.

They can be driven by a boy. Can be made to burn GAS instead of Coal.



Nominal horse power...	1	1½	2	3	4	5	6	8	10
Engine and Boiler combined...£	39	47	55	70	88	100	115	135	157
Engine and Boiler on three Wheels, with Handle.....£	41	49	57	75	95	110	125	145	167

ALL SIZES IN STOCK—DELIVERED FREE TO ANY STATION.

Illustrated Catalogues with full particulars on application.

MONDOLLOT & CO., Limited,

Have the pleasure to announce to their Customers and Friends, and to Export Merchants and Shippers, that they are issuing an

ILLUSTRATED PRICED CATALOGUE OF Mondollot's Patent Soda Water Machinery,

On the Continuous System, without Gasometer, which obtained the

GOLD MEDAL AT THE PARIS EXHIBITION, 1878.

SENT POST FREE ON APPLICATION.

MONDOLLOT & CO. also beg to invite their Friends to inspect the various Machines for making Soda Water that they will exhibit at the forthcoming gathering at the

AGRICULTURAL HALL, on Oct. 28th, 1879,

Amongst which will be found

MONDOLLOT'S PATENT DOUBLE GENERATORS,

For the continuous and automatic production of Carbonic Acid Gas without the use of a Gasometer;

MONDOLLOT'S SATURATING MACHINES, & IMPROVED SYPHON FILLING & BOTTLING STANDS;

The Briet Mondollot Syphons, &c.

MONDOLLOT & CO., Limited (late L. Friquet & Co.),

13 LITTLE JAMES STREET, BEDFORD ROW, LONDON, W.C.

PATENT SODA WATER BOTTLES.



BARRETT & ELMERS,

9 DACRE STREET, WESTMINSTER, LONDON, S.W.

BY ROYAL LETTERS PATENT,



DATED JUNE 2, 1874, No. 1923.

The Best, Cheapest, and
Cleanest Stoppers before the
Trade.

In extensive use.

No Rubber ring that can
be taken out, or come out
and get detached from the
Bottle.

Great Saving effected.

No Marbles.

All Corks, Wires, String,
and Skilled Labour super-
seded.



Easily and Rapidly Filled,
Opened, Cleansed & Washed

In universal demand.

No Small Chamber or Con-
tractions in the Neck to Pre-
vent Thorough Washing, &c.

No Marbles.

Perfectly Fitting Stoppers.

No Leakage.

BARRETT & ELMERS' FILLING MACHINES AND SYRUP PUMP COMBINED have been proved to be the Best and Cheapest in the market, of which now upwards of 1,000 have been sold.

IMPORTANT NOTICE.—Should the Bottles break, the Stoppers may be newly fitted up and used again in fresh Bottles, thereby being a great saving and advantage over some other Patents.

TO THE MINERAL WATER TRADE.

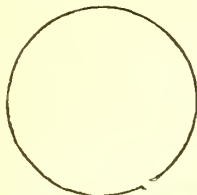
DISCS FOR ALL PATENT BOTTLES.

These are a great convenience, strengthening the Cap Labels, and keeping the lips of the Bottles free from dirt. The following sorts are kept in stock:—

"PLAIN" DISCS,

Size of this Circle, on Stout Boards, no Printing.

Price—5,000, 8d.; 10,000, 7d.; 25,000, 6d.; 50,000, 5d.; 100,000, 4d. per 1,000.



"GROTESQUE" DISCS,

Printed on good Cardboard in Blue Ink; they consist of a great variety of Amusing Figures.

Price—5,000, 1s.; 10,000, 11d.; 25,000, 10d.; 50,000, 9d.; 100,000, 8d. per 1,000.



"MOTTO" DISCS,

Printed on Stout Boards in Black Ink; they consist of an immense variety of Mottoes and Well-known Sayings.

Price—5,000, 9d.; 10,000, 8d.; 25,000, 7d.; 50,000, 6d.; 100,000, 5d. per 1,000.



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Printed on good Cardboard, Lake Ink; they consist of an immense number of Quotations from Shakespeare, Byron, Milton, Burns, &c., &c.

Price—5,000, 1s.; 10,000, 11d.; 25,000, 10d.; 50,000, 9d.; 100,000, 8d. per 1,000.



All the above are assorted in Boxes of 5,000, each Box containing an immense assortment. Prices and Samples submitted for all kinds of Labels, and also for Show Cards, Circulars, Price Lists, and all printed matter required in the business.

J. B. LAMBE & CO.,

PRINTERS TO THE MINERAL WATER TRADE,

199 UPPER THAMES STREET, LONDON, E.C.

Established 1857.]

BISHOP'S GRANULAR EFFERVESCENT CITRATE OF MAGNESIA



This perfectly white and delicately clean Preparation,

Prepared with Salts obtained from Pure Fruit Juices of Lemons and Grapes,

Is the most delicious of all the effervescent drinks which have been offered to the public since Mr. ALFRED BISHOP first invented this combination in 1857. It may be taken with perfect safety all the year round, and, besides being a most refreshing beverage, it cools the blood and acts as a mild aperient. It is now prescribed by thousands of physicians as the pleasantest and most efficient aid to **PERFECT HEALTH**; and an imitation of the product has been introduced into the British Pharmacopoeia by the General Medical Council.

It is the best and purest draught which can be taken as a morning restorative, while for delicate persons and young children it is invaluable as an alternative. It ensures a regular action of the skin and of all the organs of the body, and thus invigorates the system instead of exhausting it, as is the case with more violent medicines. It keeps better than other effervescents.

The best chymists in Great Britain and the Colonies keep no other "Granular Effervescent Citrate of Magnesia" than "Bishop's." The reason for this universal preference is that, since its introduction in 1857, it has been found that none of the imitations of this preparation, *originally introduced by Mr. Bishop*, have been able to compare with it in reliability as a medicine, or in *purity and freshness of flavour* as a cooling drink. Full directions on each bottle.

DR. REDWOOD, Professor of Chymistry at the Pharmaceutical Society of Great Britain, thus writes:—"I have examined a great many samples of Mr. Bishop's granulated preparations, obtained at various times and from different sources, and have found them to be very uniform in character, fully charged with Carbonic Acid, and obviously made with great care and accuracy."

An old Correspondent writes:—"I have never found your Citrate of Magnesia injurious to health; on the contrary, I should be sorry to be without it. I have used it now for nearly twenty years, and take a teaspoonful every morning in a glass of cold water. I require no other medicine."

Sold by all Chymists, in Bottles, at 1s. and 2s. 6d.

Established 1857.]

BISHOP'S

[Established 1857.]

GRANULAR EFFERVESCENT CITRATE OF POTASH.

Contains eight grains of this admirable anti-febrile salt in each drachm, keeps well, and yields a delicious effervescent draught. It is more efficient, more economical, and more convenient than the ordinary alkaline waters, and much superior to the various mixed powders, which consist mainly of Tartrate of Soda.

A customer writes:—"It is the nicest effervescing preparation I have ever tasted, and is infinitely pleasanter than the bottled waters."

DR. G. O. DREWRY, in his "Common Sense Management of the Stomach," recommends for Indigestion, Constipation, &c., the "GRANULAR EFFERVESCENT CITRATE OF POTASH" as a very agreeable, mild, and cooling laxative, when taken in doses of one dessert spoonful in half-a-pint of water before breakfast.

Observe that the Name, Trade Mark, and Address of the Maker is on each Bottle.

ALFRED BISHOP, Chymical Factory, Speck's Fields, Mile End New Town, LONDON.

BISHOP'S EFFERVESCENT PORTABLE MINERAL WATER SALTS, of Carlsbad, Seltzer, Pullna, Vichy, Lithia, &c. Far more convenient, and much more economical, than the bottled waters. With directions for use.

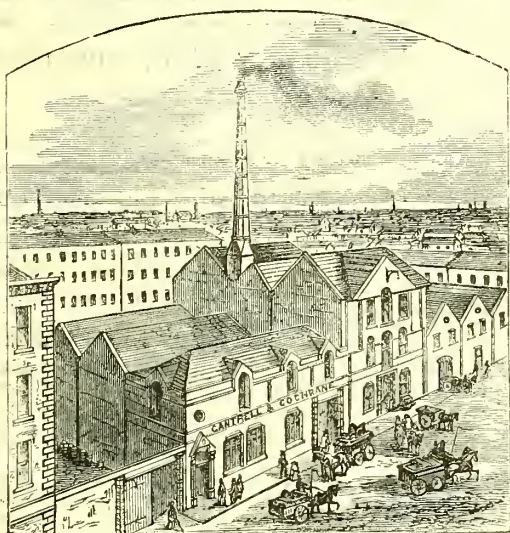
Sold by all Chymists, in Bottles, at 1s., 1s. 6d., and 2s. 6d.

CANTRELL & COCHRANE,

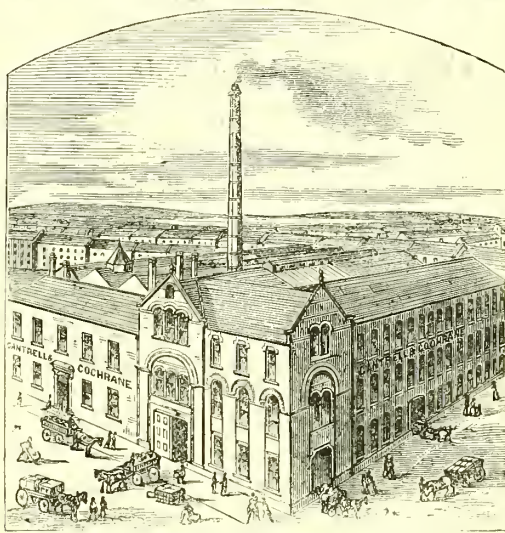
ORIGINAL MAKERS OF THE JUSTLY CELEBRATED

AROMATIC GINGER ALE.

ALL OUR DRINKS ARE NON-ALCOHOLIC.



WORKS, NASSAU PLACE, DUBLIN.



WORKS, CROMAC BUILDING, BELFAST.

ALL OUR DRINKS ARE NON-ALCOHOLIC.

MAKERS BY APPOINTMENT TO HIS EXCELLENCY THE LORD LIEUTENANT OF IRELAND.

CONTRACTORS FOR THE

Abyssinian Expedition.
Inman Steam Ship Company.
Oceanic Steam Ship Company.

Anchor Steam Ship Company.
Montreal Steam Ship Company.
Pacific Steam Ship Company.

Cunard Steam Ship Company.
National Steam Ship Company.
Kingston and Holyhead Royal Mail.

The following List of their preparations is worthy of the attention of Chemists:—

AROMATIC GINGER ALE.

Kali, or Potass Water.
Soda Water.
Seltzer Water.
Lithia Water.

Lemonade.
Summer Beverage.
Lime Juice.
Lime Juice Syrup.

Aerated Sarsaparilla.
" Dandelion.
" Quinine.
Carrara Water.

"MONTSERRAT" LIME JUICE CHAMPAGNE (Aerated).

The Machinery and Appliances used in the Laboratory and Factory for their production are of the most approved construction; the Water and all the Materials used are of the highest degree of purity; and as the greatest care is exercised in their manufacture, they may be relied on as absolutely free from organic and mineral contamination.

Testimonials from the MEDICAL PROFESSION, from accomplished ANALYSTS, and from PUBLIC MEN eminent in Literature, Science, and Art, at once give an assurance of the excellence of these Beverages, and show the universal esteem in which they are held.

INTERNATIONAL RECOGNITION has been given to their merits at various Exhibitions all over the World. Eight Gold and Prize Medals have been awarded.

All Goods ordered for Export are specially prepared and packed for their respective destinations, and are guaranteed to retain their qualities unimpaired. Terms and Prices may be obtained on application to—

CANTRELL & COCHRANE,

Nassau Place, Cromac Building, 14 & 16 Union Street, or, 53 Surrey Street,
DUBLIN. BELFAST. EDINBURGH. GLASGOW.

PURVEYORS TO HER MAJESTY'S IMPERIAL HOUSES OF PARLIAMENT.

J. H. CUFF'S MINERAL WATERS, Atkinson St., Deansgate, MANCHESTER.

SODA WATER
SELTZER WATER
POTASS WATER
15 grs.

LEMONADE
GINGER ALE
LITHIA WATER
5 grs.

LITHIA WATER WITH POTASS.
QUININE TONIC WATER, &c., &c.

SENT IN BIN CASES. NO PACKING REQUIRED.

Carriage paid on 12 Doz. assorted, or 6 Doz. of one kind.
Priced Lists free on application.

DISCOUNT ACCORDING TO QUANTITY.

SPECIAL TERMS FOR EXPORT ORDERS.

Attention is directed to Cuff's Soda, Seltzer, and Potass Waters, and Ginger Ale (the latter a speciality), all of which command a very extensive and ready sale.

Cuff's Waters are prepared expressly for a High-class Family Trade.

"ABSOLUTELY PURE."

SEE ANALYSES. Sent post free on application.

ELLIS'S



REGISTERED.

RUTHIN WATERS.

Soda, Potass,
Seltzer, Lemon-
ade, also Water
without Alkali.
For GOUT,
Lithia Water, &
Lithia &
Potass Water.

CORKS BRANDED "R. ELLIS & SON, RUTHIN," and every label bears their Trade Mark. Sold everywhere, and wholesale of

R. ELLIS & SON, RUTHIN, NORTH WALES.

London Agents: W. BEST & SONS, Henrietta St., Cavendish Square.

GENUINE BRIGHTON SELTZER AND OTHER AERATED WATERS,

Prepared with scrupulous care as to chemical accuracy, and with the Natural Spring Water of Brighton, the Purest in the Kingdom.

JOHN CHALLONER & SONS,
MINERAL WATER MANUFACTURERS,
PROVIDENCE PLACE,
BRIGHTON.



See our Advertisement, May Edition.

MILLS & CO. BOURNE WATER, THE PUREST IN ENGLAND.

MILLS & CO., Manufacturers of the
Original BOURNE ARTESIAN AERATED WATERS.

BOURNE SODA WATER, unequalled for
its natural Alkalinity.

BOURNE POTASH WATER—a Special
Remedy for Rheumatism and Gout.

BOURNE LEMONADE—Superior Quality,
made from the Fruit.

BOURNE LITHIA WATER—Specific for
the Gout. Guaranteed to contain a fixed quantity of Lithia.

BOURNE SELTZER WATER—The natural
Alkalinity of the Bourne Artesian Well Water, combined
with Artificial Salts, produces one of the best articles made.
This Seltzer Water is well adapted for invalids for its purity.
When taken at dinner-time, it promotes digestion.
Early in the morning, slightly aperient.

R. M. MILLS & CO., MANUFACTURERS, BOURNE.
Messrs. Padgett & Son, Wine Merchants, 27 Motcombe
Street, and Messrs. Hardy & Co., Chemists, 42 Fenchurch
Street, corner of Mincing Lane, Wholesale Agents,
London.

And their appointed Agents throughout the Kingdom.

FOREIGN MINERAL WATERS.

FREDERICKSHALL (5 Cases, 6d. per Case less) 24/6 Case, 30 bot., 34/ Case, 60 1-bot
APOLLINARIS (20 Hprs., 1/- per Hpr. less) ... 25/ Hpr., 50 " ... 39/ Hpr., 100 "
Hampers free, carriage paid; Empty Bottles, 6d. per dozen.
HUNYADI JANOS (10 Cases, 3-bts., 5/- less; 10 Cases, 6ts., 3/- each less)
30/- Case, 25 bts. ... 50/- Case, 50 1-bts.
SELTZER ... 11/6 Hpr., 25 " ... 15/6 Hpr., 50 "
PULLNA ... 18/- Case, 20 " ... 30/- Case, 50 "
VICHY ... 31/- " 50 " ... 27/- " 50 "
CARLSBAD ... 32/6 " 50 "
KISSENGEN ... 45/- " 50 "
SCHWALBACH ... 27/6 " 50 "
HOMBURG ... 37/6 " 50 "
WILDUNGEN ... 40/- " 50 "
CARLSBAD SALTS, 1-bot., 21/- per doz.; 1-bot., 41/- per doz.; 1-bot., 80/- per doz.

FINE NORWEGIAN BLOCK ICE.

ORIGINAL BLOCKS, 2 to 3 cwt. each ... 2/6 per cwt
1 cwt. to 2 cwt. ... 4d. per lb. 1 Under 1 cwt. ... 1d. per lb.
Packing and Mate for Original Blocks free; 3d. each allowed for Mate if returned
in good condition.

PRINTED DIRECTIONS for STORING ICE sent free on application.

W. B. HARRISON,
Importer of Ice & Mineral Waters,
6 BRIDGE STREET, SUNDERLAND.

RANDALL, SLOPER & CO., SODA WATER MANUFACTURERS, SOUTHAMPTON.

GOODS FORWARDED CARRIAGE PAID WITHIN 80 MILES OF
SOUTHAMPTON, ON ORDERS OF 2 GROSS AND UPWARDS.

Soda, Seltzer, Potash & Aerated Waters
supplied in Syphon Bottles.

Importers of Hunyadi János, Friedrichshall, Vichy,
Püllna, Carlsbad, and other Foreign Mineral Waters,
supplied at Prices which will bear comparison with
London Rates.

PRICE LISTS FORWARDED ON APPLICATION.

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER

(GUARANTEED PURE AND FREE FROM CAPSICUM).

This highly concentrated Essence has the purest Jamaica Ginger flavour and aroma, is highly adapted for the manufacture of Aërated Waters, and for all dietetic, medicinal, and pharmaceutical purposes.



THE COST of this Essence in the manufacture of Ginger Beer, &c., is a little under 2 $\frac{3}{4}$ d. per dozen bottles. Dose (when used medicinally), 10 or 15 drops to half-a-teaspoonful in water.

Trade Price, 5s. per lb.

THE COMPOUND ESSENCE

(GUARANTEED PURE AND FREE FROM CAPSICUM).

Trade Price, 5s. 6d. per lb.

This Essence, which is an addition of *Vanilla, Lemon, and other flavours* to the above, is strongly recommended for the manufacture of Ginger Beer, Wines, &c., to which it imparts with the GINGER a PECULIARLY FINE FRUITY FLAVOUR and AROMA. THE COST of this Essence in the manufacture of Ginger Beer, &c., is a little under 3d. per dozen bottles.

Directions for the use of this and the preceding Essence.

For GINGER BEER, CORDIALS, &c., 8 fluid ounces will be required to make inclusively one gallon of Syrup, or 1 in 20 For WINES, one pint of Essence will flavour 5 gallons, or 1 in 40.

THE COMPOUND FORTIFIED ESSENCE Specially adapted for the Manufacture of GINGER ALE.

Trade Price, 5s. 6d. per lb.

THIS ESSENCE, besides its special adaptation as above, is strongly recommended for the manufacture of GINGER BEER and other kinds of Aërated Beverages, especially in those cases where it is desired to impart to those drinks at a SMALL COST the FULLEST amount of PUNGENCY with the FINE GINGER AROMA and FRUITY FLAVOURS of the LAST-MENTIONED ESSENCE.

DIRECTIONS.—For the manufacture of GINGER ALE, one pint will be required inclusively for four gallons of Syrup, or five fluid ounces in each gallon. For GINGER BEER or GINGERADE, one pint in five gallons Syrup, or four fluid ounces in each gallon. THE COST of this Essence in the manufacture of GINGER ALE is 1 $\frac{3}{4}$ d. per dozen bottles, and for GINGER BEER or GINGERADE a little under 1 $\frac{1}{2}$ d. per dozen bottles.

MEDICAL AND OTHER OPINIONS ON THE SOLUBLE ESSENCE:—

"Singularly free from resin."—*The Lancet*, London, July 13th, 1878.

"It is a pure, elegant preparation, and is free from resinous matter. Ginger Beer made with it is clear and transparent, has the aroma and flavour of the Ginger, and is very pleasing to the palate."—*Medical Times and Gazette*, London, March 16th, 1878.

"It should entirely supersede the official preparation of the *British Pharmacopœia*. The Ginger Beer made with this pure TINCTURE OF GINGER is extremely grateful and palatable. It is clear and bright as water; in fact, it will be scarcely recognised under the old name, and is CERTAINLY PREFERABLE TO SOME WINES we have tasted under the name of CHAMPAGNE."—*Medical Press*, London, March 20th, 1878.

"It is a Pharmaceutical Desideratum. Ginger Beer manufactured from this ESSENCE has the purest Jamaica Ginger Aroma, distinguishable as soon as poured out. It is a beverage fit for any gentleman's table, and ought to attain great popularity."—*The Chemist and Druggist*, London, November 15th, 1877.

"Contains the Essential Oil or Aromatic constituent of the root, has the Aroma of Ginger without the unpleasant taste of the resin, and is specially adapted for flavouring Ginger Beer."—*Pharmaceutical Journal*, London, December, 1877.

"It is really necessary that a superior Ginger Beer should be introduced to the public, and in Mr. Hay's Ginger Essence we find the very ingredient to bring about such a desideratum."—*Mineral Water Trade Recorder*, London, May 1st, 1878.

PREPARED BY

W. HAY, Manufacturing Chemist,
4 REGENT'S TERRACE, ANLABY ROAD, HULL.

Agents—Messrs. HEARON, SQUIRE & FRANCIS, Wholesale Druggists, 5 Coleman St., London, E.C.

ZOEDONE

A Delicious, Sparkling, Phosphated Iron Beverage.—Non-Alcoholic.—

A Brain and Nerve Tonic, and Nutrient Tonic Beverage.

RECOMMENDED BY THE FACULTY.

From "The British Medical Journal," August 30, 1879.

Among the various medicinal and other exhibits at the recent meeting of the British Medical Association at Cork, to some of which we shall hereafter direct attention, there was one which, to our own judgment, bore away the palm. We refer to the aerated and phosphated iron beverage which Messrs. Evans & Co. of Wrexham manufacture for David Johnson, Esq., F.C.S., the patentee.

We had ample opportunities of testing its refreshing and invigorating qualities during our sojourn in the fair city of the extreme south-west; and we can confidently recommend it to the attention of physicians and others who are occasionally at a loss what to direct their patients to take when parched by feverish thirst or depressed by exhausting ailments—notably in cases where alcoholic stimulants would be prejudicial. We feel that it would be found exceedingly useful in mitigating the discomfort oftentimes experienced by those suffering from the thirst, loss of appetite, and general *malaise* connected with the last stage of phthisis and chronic bronchitis.

We would also, from our observations and experience, advise its introduction into clubs, taverns, and places of public amusement, where it would judiciously supersede vinous and alcoholic stimulants, seeing that it contains, as its name implies, life-giving ingredients in a form easily assimilated.

Every Chemist that has introduced ZOEDONE has found a large and regularly increasing sale for it. It is put up in Champagne Bottles, and there is no trouble with empties, as the bottles are included in the price. Customers supplied with Pamphlets for distribution; also a special Circular for medical men stating the formulæ.

Orders should be anticipated by one week.

Report on the ZOEDONE of Messrs. Richard Evans & Co., of Wrexham.

The Analytical Sanitary Institution, 54 Holborn Viaduct, London, E.C., Sept. 21, 1878.

I have carefully examined the new Aerated Mineral Water manufactured by Messrs. R. Evans & Co., and to which they have given the name of "ZOEDONE." I find the statements made respecting its composition to be fully borne out by the analysis. The "ZOEDONE" is a bright, sparkling, and very pleasant beverage, quite free from medicinal taste; indeed, it forms a most agreeable and elegant vehicle for the administration of the Phosphates of Lime and Iron which it contains, and which are in a complete state of solution.

ARTHUR HILL HASSALL, M.D., London,

Author of "Food, its Adulterations, and the Methods of their Detection."

ZOEDONE is supplied direct by us and our Agents on the following Terms, Cash Prices, including bottles and package, free on Rails at Wrexham—6/6 per doz. in half Champagne Bottles (in 6 doz. cases). 12/- per doz. in large Champagne Bottles (in 3 doz. cases). 6d. per doz. extra for export, packed in casks. Trade Terms on application.

WHOLESALE AGENTS:—

LONDON—Messrs. Allen & Hanburys.	BRISTOL—Messrs. Ferris & Co.	HULL—Messrs. Lofthouse & Saltmer.
" Messrs. Corbyn, Stacey & Co.	CORK—Messrs. W. & H. Goulding.	LEEDS—Messrs. Goodall, Backhouse & Co.
" Messrs. Edwards & Sons.	DUBLIN—Messrs. Hamilton, Long & Co.	LIVERPOOL—Messrs. Clay, Dod & Case.
" Messrs. Heron, Squire & Francis.	EDINBURGH—Messrs. Duncan, Flockhart	" Messrs. Evans, Sons & Co.
" Messrs. Savory & Moore.	& Co.	MANCHESTER—Messrs. James Woolley,
BIRMINGHAM—Messrs. Southall Bros. &	" Messrs. John Mackay & Co.	Sons & Co.
Barclay.	GLASGOW—The Glasgow Apothecaries' Co.	PARIS—Hogg, 2 Rue Castiglione.
BRADFORD—Messrs. Harrison, Parkinson	HAMBURG—Mr. James H. Gray.	
& Co.		

PATENTEE—DAVID JOHNSON, F.C.S.

Manufacturers, RICHARD EVANS & CO., Wrexham, North Wales.

LAMPLOUGH'S EFFERVESCENT PYRETIC SALINE.



HAVE IT IN YOUR HOUSES AND TRAVELS, USING NO OTHER SALINE; it gives instant relief in Headaches, Sea or Bilious Sickness, and quickly cures the worst form of Eruptive or Skin Complaints. The various diseases arising from Constipation, the Liver, or Blood Impurities, Inoculation, the results of breathing air infected with Fevers, Measles, or Smallpox, are frequently prevented and certainly cured by its use.

The sale of these Saline Salts having greatly increased during the past few years, I beg most cordially to thank those who sell and recommend the same, and also to inform intending dealers that they will find Messrs. BARCLAY, EDWARDS, MAW, NEWBERRY, SANGER, SUTTON, and the Wholesale Houses generally, ready to supply their wants. This Advertisement is found needful in consequence of the trouble, cost, and inconvenience in the keeping and collection of numerous small accounts. *Note.*—The Name, Trade Mark, Labels, Wrappers, &c., are all Registered and Entered at Stationers' Hall.

113 HOLBORN HILL, LONDON, E.C.

SPECIAL NOTICE.—Medical Gentlemen having fever cases, and desirous of trying the Saline, can have a single bottle at wholesale prices by sending their cards.



PARNELL'S CHALYBEATE SALINE.

An Agreeable Cooling Febrifuge and Tonic Aperient Effervescent Salt, being a Chalybeate Water in a solid form.

ANALYTICAL REPORT BY DR. T. REDWOOD.

As the result of a careful analysis I am enabled to state that Parnell's Chalybeate Saline is what it purports to be, a mild Chalybeate and tonic, possessing aperient and alterative properties to a sufficient extent to render it an efficient, and as I believe, a valuable medicine. The ingredients are judiciously combined so as to yield, when mixed with water, an agreeable effervescing draught.

T. REDWOOD, Ph.D., F.I.C., F.C.S.,

Professor of Chemistry and Pharmacy to the Pharmaceutical Society of Great Britain.

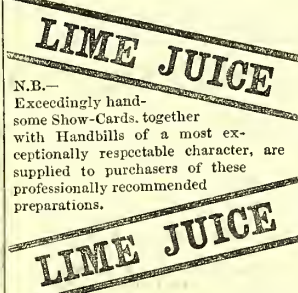
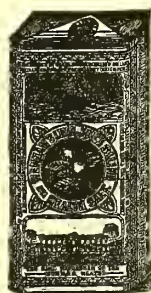
To be obtained in Bottles, 2s. 6d., from SANGER & CO., NEWBERRY & SON, and all Wholesale and Retail Chemists, and from

26 BUCKINGHAM PALACE ROAD, S.W.

Show Cards and Handbills sent free on application.

Paris Agent—M. SWANN, Rue Castiglione.

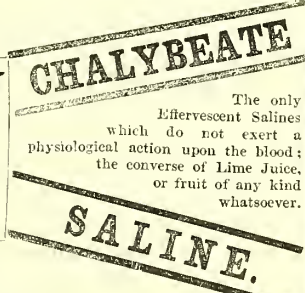
IMPORTANT DESIDERATA ARE SUPPLIED IN



WENHAM'S



WENHAM'S



In BOTTLES, 2s. 6d. and 4s. 6d. each; CASES, 21s.

SOLE MANUFACTURERS (REGISTERED),

WHEELER & CO., LONDON, and SOUTHBEND-ON-SEA.

"Messrs. WHEELER & Co. have produced a REMARKABLY HANDSOME SHOW-CARD, representing a package of WENHAM'S LIME-JUICE SALINE, on a gold ground, with a border of lime fruit and blossoms."—CHEMIST AND DRUGGIST, Trade Notes, July, 1879.

G. COLE,

MANUFACTURER OF BOXES FOR CODD'S PATENT BOTTLES,
AND MAKER OF
ALL KINDS OF PACKING CASES
FOR THE SODA WATER TRADE.

N.B.—Orders executed with dispatch, and on the most reasonable terms.

STEAM WORKS:—

48 and 50 TRINITY STREET. ROTHERHITHE, S.E.

HENRY'S CALCINED MAGNESIA

Continues to be prepared with scrupulous care in the greatest chemical purity, by

Messrs. THOMAS & WILLIAM HENRY, 11 East Street, St. Peter's, Manchester,

And is sold in bottles, authenticated by a Government Stamp bearing their names.

Price 4s. 6d., or 2s. 9d.

NEW YORK—MESSRS. J. & S. FERGUSON, Pine Street. PARIS—MESSRS. ROBERTS & CO., 23 Place Vendôme.

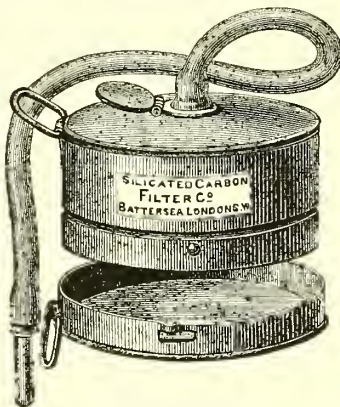
NOVELTY.

SILICATED CARBON POCKET FILTER,

IN GERMAN SILVER, NICKEL-PLATED.

Retailed at **FIVE SHILLINGS** each.

Designed by
MAJOR FRASER,
of the
ROYAL ENGINEERS,
especially
for Officers' Kits.
Weighs only 8 ounces.



It has been approved
by the
Authorities at the
Horse Guards, and has
been largely
used in the Afghan and
Zulu Expeditions.

No. 20 H.

Sample sent free by Post on receipt of **FOUR SHILLINGS**.

DOMESTIC FILTER, NO. 27.



Made in cream-coloured Stoneware, fitted with the Silicated Carbon Media, complete with Cover and Silver-plated Tap.
All sizes of this pattern can now be had with Patent Ice Compartment, which renders this Filter the most perfect of Refrigerators.

PRICES.		With Ice Compartment.	
No. 0, capacity $\frac{1}{2}$ gall.	10s. 6d.	17s. 6d.	—
No. A, " 1 "	14s. 6d.	25s. 0d.	—
No. B, " 2 "	21s. 0d.	36s. 0d.	—
No. C, " 4 "	32s. 0d.	48s. 0d.	—
No. D, " 6 "	42s. 0d.	60s. 0d.	—
No. E, " 8 "	52s. 0d.	80s. 0d.	—
No. F, " 12 "	70s. 0d.	—	—

UNIQUE STONEWARE FILTER, NO. 28.

No House should be considered as thoroughly furnished until it is supplied with one or more good Filters.

No Water should be used for Drinking or Cooking without being Filtered.

This Filter is made of a New Ornamental Stoneware, similar in shape to the Domestic Filter, and of two-gallon capacity. When arranged in a Hall or Conservatory, side by side with evergreens, the effect is very pleasing.

Price, with Silver-plated Tap, 30s.



MAIN SUPPLY FILTER, NO. 40.

SPECIALLY ADAPTED FOR
Mansions, Schools, Hospitals, Public
Institutions, Breweries, Distilleries,
Soda Water Manufactories,
Dye Works,

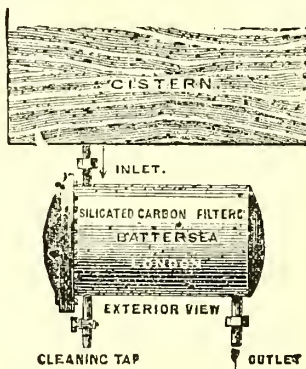
And all other Establishments where large quantities of

PURE WATER

Are required.

The ordinary Sizes kept in Stock are as follows:—

A, $\frac{1}{2}$ -inch or $\frac{3}{4}$ -inch pipe	£6 6s.
B, 1-inch pipe	£9 9s.
C, $1\frac{1}{2}$ -inch, $1\frac{1}{2}$ -inch pipe	£16 15s.
D, 2-inch pipe	£26 5s.



This Filter is extremely simple in construction, and can be either connected with a Cistern or attached to the Main Service Pipe. It requires no attention beyond an occasional opening of the Cleansing Tap, and will deliver a supply of purified water at a rate of 50 to 1,000 gallons per hour, according to size.

Special Contracts entered into
for Large Works, Institutions,
&c., &c.,

FOR PURIFYING THE WHOLE OF THE WATER SUPPLY OF A BUILDING BEFORE USE.

Ensuring Rapid and Perfect Filtration, at either High or Low Pressure.

SILICATED CARBON FILTER CO., CHURCH ROAD, BATTERSEA, LONDON.

PARIS: 131 Boulevard Sebastopol.

NEW YORK: 194 William Street (H. R. Mensing, Agent).

HAMBURG: 9 Deichstrasse (Joseph Schmutzer & Co., Agents).

SILICATED CARBON FILTERS.

SYPHON FILTERS FOR TRAVELLERS.

By means of these Filters pure and perfectly wholesome water may be drunk from any pond or stream by simply immersing the Filter therein and drawing the water through the tube by suction.

Each of these portable Filters may be



No. 20.

used as a Syphon by placing it in a vessel of water, then drawing the water by the mouth, and allowing the flexible tube to hang over the side below the Filter. When once set in operation their action is continuous.

They are readily cleaned from sedimentary matter by merely blowing through the tube, and brushing the surface of the filtering medium.

- | | |
|--|-------|
| A.—Pocket Filter, 2½ inches diameter, in porcelain, with glass mouthpiece, in decorated metal box | s. d. |
| .. .. . | 2 6 |
| B.—Ditto, 3½ inches diameter, in best stoneware | 5 0 |
| with silver-plated tap | 7 0 |
| C.—Emigrant's, 5 inches diameter, with silver-plated tap | 12 0 |
| G.—Pocket Filter, for carrying over shoulder, as supplied to the Forces in Abyssinia and in Zululand, and to the Ashantee Expedition | 3 6 |
| H.—Ditto, nickel-plated, designed by Major Fraser, R.H., and specially recommended by the Horse Guards for Officers' kits | 5 0 |

TABLE FILTER, NO. 24.

Made of stout glass, in 1, 2, and 3 pint sizes, the filtering medium being securely fitted into the bell-funnel, so that it is not liable to become loose, or to allow unfiltered water



to pass. This Filter is peculiarly suited for the Bedroom and for Table use, affording a ready and simple means of obtaining at any time freshly-purified water.

PRICES.

O, 2s. 6d.; A, 4s.; B, 5s. 6d.

Engraved Vine Pattern—O, 3s. 6d.; A, 5s. 6d.; B, 7s. 6d.

POROUS TERRA COTTA FILTER, NO. 29.

Shape of this Filter as Fig. No. 24.

O, 2s. 6d.; A, 4s.; B, 5s. 6d.

SILICATED CARBON BLOCKS.

2 in., 1s. 6d.; 2½ in., 2s. 6d.; 2¾ in., 3s.; 3½ in., 4s.; 4¾ in., 5s. 6d. ea.

SPECIAL QUOTATIONS FOR QUANTITIES.

PRIZE FILTER,

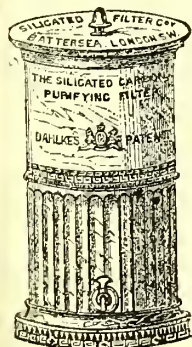
This Filter is constructed in the form and colour of an Etruscan Vase, having inside it a movable pan, into which the Silicated Carbon filtering medium is fitted.



PATTERN NO. 23.

The exterior is made of Porous Ware, which acts with remarkable power as a Refrigerator, keeping the water deliciously cool. Capacity, about Two Gallons.

PRICE, WITH SILVER-PLATED TAP, £3 10s.



DINING-ROOM FILTER, No. 22.

MADE IN MARBLED CHINA.

Size A holds about two gallons; size B, five gallons.

PRICES.

- | | |
|---|-------|
| A | 35s. |
| B | 80s. |
| A, with Ice Compartment (New Patent.) | 42s. |
| B, with Ice Compartment (New Patent.) | 100s. |

The large size (B) is specially adapted for Hotels, Refreshment Rooms, Luncheon Bars, &c.

REFRIGERATOR FILTER, NO. 25.

Made in Porous Terra-Cotta Ware,

Which acts with remarkable power as a cooler, and renders this Filter invaluable, especially in Tropical Climates,

AFFORDING A

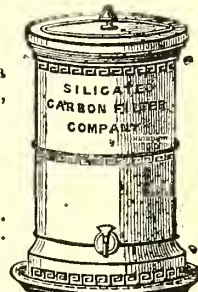
COOL DRAUGHT OF PURE WATER.

Price, with Silver-plated Tap 31s. 6d.

Ditto, ditto, with Ice Compartment 42s. 0d.

Capacity, Two Gallons.

Specially adapted for Tropical Climates.



PORTABLE FILTER, No. 34, for Travellers at Hotels, Families at the Seaside, Pic-nics, &c. Made in Marbled Porcelain, with Cover. Can be placed in a jug, decanter, or other vessel. Price 7s. 6d. each.

SILICATED CARBON FILTER CO., CHURCH ROAD, BATTERSEA, LONDON.

OZOKERIT.

Grand Medal,
MOSCOW, 1872.



Grand Medal,
VIENNA, 1873.

PATENTED.

MADE TO ALL SIZES.

At the CENTENNIAL PHILADELPHIA EXHIBITION the Highest Honours
WERE AWARDED TO **J. C. & J. FIELD** FOR THEIR EXHIBIT OF

CANDLES.

PATENTEES AND ORIGINAL MANUFACTURERS OF SELF-FITTING CANDLES.

Made in all Sizes. | Made in all Colours. | Burn to the End. | Require no Scraping.
Made in all Qualities. | Fit all Sockets. | Require no Cutting. | Are Safe, Economical, Cleanly.

CANDLES SPECIALLY ADAPTED FOR EXPORTATION TO HOT CLIMATES.

OZOKERIT (Patented). In handsome 1-lb. Packets.

These beautiful Candles are made in ALL SIZES, and from their great hardness and non-liability to bend when exposed to a high temperature, are well adapted for Ball Rooms and Tropical Climates. They possess the highest illuminating power of all descriptions of Candles.



Tablets 5 to 1b.

UNITED SERVICE SOAP,
Of highly emollient properties, and singular durability of Perfume.

WHOLESALE DETAILED PRICE LISTS OF

J. C. & J. FIELD, Patent Candle Works, LAMBETH MARSH, LONDON, S.E.



Tablets 3 to 1b.

ESTABLISHED 1843.

M. A. CRAVEN,
Wholesale & Export Confectioner,
AND MANUFACTURER OF

MEDICATED LOZENGES, REFINED LIQUORICE, JUJUBES, &c.
PAVEMENT, CONEY ST., & COPPERGATE, YORK.

Lozenges of all descriptions made from Customers' private formulæ (or ingredients) and stamped with name if required.

PRICE LIST ON APPLICATION.

RANDALL'S BLACK CURRANT LOZENGES.

	Net Cash.	To Acct.
Plain Black Currant, old square ..	s. d. 2 6	s. d. 2 8
" " " rough oval ..	s. d. 2 6	s. d. 2 8
Black Currant and Ipecacuanha ..	s. d. 2 6	s. d. 2 8
Black Currant and Tannin..	s. d. 3 0	s. d. 3 3
Black Currant Voice (warm astringent) ..	s. d. 3 0	s. d. 3 3
Black Currant Cough Lozenges ..	s. d. 3 6	s. d. 3 10

(Ipecac. and Morphin, strength as "B. P.")
In Bottles, 1 lb., 2 lbs., 4 lbs., and 7 lbs. For Exportation, in soldered tins, of any size. From EDWARDS, London; through any Wholesale House; and from the Manufacturers,

RANDALL & SON, Southampton,

Who will forward Samples by post on application.

Also, BROWN COUGH LOZENGES, 2s., 2s. 2d.; 7 lbs. stamped with name free.

N.B.—Medical Lozenges of every kind,

Including those of the Pharmacopœia of the Hospital for Diseases of the Throat, London.

FEEDING BOTTLES!!!

"THE BEULAH."

Extraordinary Saving of 12½ to 20 per cent. to Buyers of Quantities of the above.

The "Beulah" is the best shape, clearest white glass, best fitting, and cheapest Bottle ever introduced into the Market.

Sample sent, post free, on receipt of Trade Address Card, with Prices, &c., also of Boxwood Fittings to the Trade, equally cheap.

ALEXANDER & CO.,

GENERAL GLASS BLOWERS,

6 Kenton Road, South Hackney, London.

IMPORTANT NOTICE TO CHEMISTS.

Owing to the unscrupulous methods and false assertions employed by an irresponsible vendor of India Rubber Porous Plasters, we feel constrained to state that our

INDIA RUBBER POROUS STRENGTHENING PLASTERS

are guaranteed not to contain a single atom of Lead or any other ingredient calculated to injure the consumer; on the contrary, **THEIR COMPOSITION IS PURE VEGETABLE**; in quality and general appearance they are unsurpassed by any maker, and can be obtained by the gross at £1 16s., less 10 per cent.

THE "LANCET."

"Messrs. SEABURY & JOHNSON have produced a list of Plasters, all made with India Rubber as a basis, which are elegant, stick well, are flexible, easily adapting themselves to the folds of the skin, occasion no inconvenience to the patient, and have the appearance of being made with faithfulness to the British Pharmacopoeia. One Plaster worthy of especial praise is the Salicylated Isinglass: it is flexible, and on being slightly wetted makes a good adhesive plaster for surgical purposes."

THE "MEDICAL PRESS AND CIRCULAR."

"Among more recent and valuable Pharmaceutical improvements we would draw the attention of the reader to an elegant and convenient lot of Plasters prepared by SEABURY & JOHNSON. We have recently tried some of them, and find them to be, severally, very neat, clean, and efficacious preparations. India Rubber has been used as a base in the preparation of the Plasters, by which means the medicinal substances used are protected. With regard to their therapeutical efficacy, and the style in which they are got up, we can speak from experience. Among the other Plasters which have given us great satisfaction, we may mention those in which *Belladonna* and the *Spanish Fly* are, respectively, the chief ingredients."

"LONDON MEDICAL RECORD."

"Messrs. SEABURY & JOHNSON, of 28 Red Lion Square, London, have forwarded to us a series of Plasters made in a style which deserves warm praise. All of them are of the best make that we have yet seen, and, taken as a series, constitute a considerable improvement in the manufacture of Medicinal Plasters, of which surgeons and physicians will, on inspection, easily realise the value. Their Salicylated Isinglass Plaster, spread on strong waterproof cotton cloth, and applied by wetting, is the best surgical adhesive plaster which we have seen. The plaster itself is made of pure gelatine, and is antiseptic in character; it adheres firmly and closely on being wetted with a sponge; it does not spoil in any climate. It is obviously from its manufacture calculated to last much longer than the ordinary adhesive plaster. The Mustard Plaster, the Capsicum Plaster, India Rubber Blister Plaster, and Pitch Plasters are all equally deserving of commendation."

The "British Medical Journal," "Medical Times and Gazette," "Chemist and Druggist," and many of the Provincial Medical Journals have noticed our productions as worthy of special commendation. Our improved Pharmacopoeia and Surgical Plasters in India Rubber combination overcome all objections found in the use of plasters, and present the following advantages and qualities, which will be appreciated by every Physician, Surgeon, and Chemist:—

Perfect Cleanliness and Reasonable Price.
Perfect Pliability in any temperature.
Adhesion without Heat or Moisture.
Combined India Rubber Prevents Decomposition.

Being Porous they do not slide or move, thereby ensuring increased local action.
They remain serviceable longer than other plasters.
India Rubber Preserves the incorporated Extract or Drug.

Our Mustard Plasters are spread on Cotton Cloth instead of Paper.

Our Isinglass, Court, Corn, and Bunion Plasters are all spread with Chemically-pure Fish Gelatine incorporated with Salicylic Acid. Fish Isinglass treated by our method of purification ensures an article that adheres quickly by the application of the slightest moisture; in addition to its more susceptible and greater adhesive properties it is rendered antiseptic.

Every Pharmacopoeia Plaster guaranteed to be of Official Strength. We also manufacture in addition to our list of India Rubber Plasters, in the most approved form and improved quality, Mustard, Silk, Isinglass, Medicinal, Corn, Bunion, and Court Plasters in great variety.

If our India Rubber Porous Strengthening Plasters possess any superiority over similar articles it is owing to an increased local action. All Porous Plasters are packed two dozen in a box, and are fully warranted to give perfect satisfaction. We quote a few of the more prominent kinds, subject to 10 per cent. discount monthly.

Size, 7½ x 5.	Per doz.	Per gross.	
India Rubber Porous Strengthening Plasters	4 0	£1 16 0	
" " Arnica	4 0	2 4 0	
" " Aconite	5 0	2 17 0	
" " Belladonna (B.P.)	4 6	2 11 0	
" " Capsicum	5 0	2 17 0	
" " Opium (B.P.)	7 0	3 16 0	
" " Poor Man's	4 0	2 4 0	
" " Burgundy Pitch (B.P.) Plasters	4 0	2 4 0	
" " Warming (B.P.)	5 0	2 17 0	
" " Belladonna Plaster (B.P.), 7 in. x 1 yd.	1 7 6	1 7 6	
India Rubber Blister Plaster (B.P.), 7 in. x 1 yd.	1 7 6	1 7 6	
India Rubber Capsicum Plaster	"	1 7 6	

Surgeons' Rubber Adhesive Plaster, 7 in. x 1 yd.	Per doz. Rolls	£0 17 0
Mustard Plasters (10 in a box), on Cotton Cloth	Per doz.	0 10 0
" " (6 in a package)	"	0 6 0
" " (3 in a package)	"	0 3 0
" " yard Rolls, 6 x 36	"	0 10 0
" " ½-yard Rolls, 6 x 18	"	0 6 0
Salicylated Isinglass Plaster, 5-yard Rolls	Per Roll	0 5 0
" " 1	"	0 1 3
India Rubber Porous Strengthening Plasters, in 5 yard Rolls, 5 in. wide	Per Roll	0 6 3
Ditto ditto in yard Rolls, ditto ditto	Per doz.	0 17 0
India Rubber Porous Belladonna Plasters, in 5 yard Rolls 5 in. wide	Per Roll	0 8 6

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ENO'S "FRUIT SALT,"

"FRUIT SALINE," OR "FRUIT POWDER."

ENO v. STEPHENS IN THE COURT OF CHANCERY.

Shorthand Writer's Notes of Vice-Chancellor Bacon's Summing-up and Judgment.

Sir HENRY JACKSON, Q.C., on proceeding to sum up in detail on the evidence and arguments in the case, was stopped by the VICE-CHANCELLOR in the following words:—

Sir Henry Jackson, I do not think I ought to trouble you. The case has been discussed at very great length. I confess somewhat to my astonishment when Mr. Hemming declined to adopt the evidence as it was before the Court of Appeal, and put the Plaintiff to prove by the same evidence the same facts which had been proved before, I was under the impression that he meant to call witnesses on his own behalf. If that had been, as it probably may have been his intention at that time, there would have been a reason perhaps for repeating over again at very great length and considerable expense, of course to somebody, the evidence upon which the Court of Appeal had acted—I say nothing about what was done in this Court, but the Court of Appeal had acted upon that evidence. The case, however, concludes, and no evidence whatever is adduced by the Defendant—not even his own statement in his Defence is verified by his own affidavit. What is to be done with a case like that? The whole principle of the case was decided upon the first occasion. The Court of Appeal thought it right to adopt that restriction which I had thought it right to adopt, not to extend the Injunction further than the then present exigency of the occasion required. Not one word of the judgment of the Court of Appeal shows that there should be any restriction, or that there should be any restriction when the case came on for hearing. Now it comes on for hearing upon precisely the same evidence, and the evidence, among other things, is, that in the circular which accompanies this bottle of Salt, the words to which the Plaintiff particularly objects are repeated by the Defendant, and repeated by means of copying the Plaintiff's circular. Mr. Giffard says nobody buying the bottle would think of looking at the circular, for it is enclosed in the wrapper, and not even visible to the eye. But the case is one in which the Plaintiff complains of the general similarity and the general appearance of the names which are used by the Defendant, and if a purchaser entertained any doubt, if he was puzzled for a moment between "Vinous" or "Vinous," and Eno's—the sounds being, in one mode of pronunciation, very much alike—if he opened the wrapper and read the circular he would say, My doubts are removed; this is what I want—I want Fruit Saline, and here it is—the circular says it is "Fruit Saline."

The Defendant in his statement at the end of the fourth paragraph says he has not "at any time since the month of August, 1877, used the words Fruit Saline, or Fruit Powder, in any label or advertisement or otherwise in connection with the sale of the said preparation." Under the old system if a defendant had put in his answer, as he must, upon oath, he might perhaps have read that passage and said "the Plaintiff's allegation in that respect is denied." The Defence is not put in on oath and the Defendant declines to pledge his oath to that fact. But it does not rest there; for the evidence is clear and conclusive that after the month of August, 1877, when the Plaintiff, not without some degree of forbearance, as it seems to me, was content to take the Defendant's word that he would not repeat that offence which the Plaintiff complained was doing him that injury which he thought he was suffering, he did, in spite of his promise, repeat that which the Plaintiff called an offence and believed to be an injury to him. The case comes to a hearing, the Defendant insists upon the Plaintiff proving his case. At the Defendant's instance the Plaintiff has proved his case, and, among other things, has proved the utter falsehood of that Defence which is set up in the paragraph which I have read. The matter, therefore, is wholly without doubt, without defence, without excuse of any kind that I can perceive, because, when I am told that I must consider what the intention of the parties was, and when I am told, moreover, that there is no evidence that anybody has been deceived, and the Defendant in his defence says nobody has been deceived, his intention to deceive is not contradicted. That is what the Plaintiff imputes to him; and that is what, I think, the Plaintiff establishes not only from the simplicity of the sign, but from the fact that, when the complaint was first made in August, 1877, they were words which the Defendant admitted he had no right to use. For what reason? Because they were calculated to deceive—calculated to represent the Defendant's goods as those which the Plaintiff was selling under the title which he had adopted.

Upon the general case, therefore, in my opinion, the matter is beyond all doubt. It is proved that the use of the word "Fruit" with other substantives, "Saline" and "Salt," and so on, has been made by the Defendant since the time when he promised not to make it, when he admitted it was unlawful, and which I have no doubt whatever was wholly unlawful. It is said that he endeavoured to keep his promise by pasting something over the word "Fruit." Well, if that meant anything it is a plain admission of the justice of the Plaintiff's claim in that respect. But how can I consider that that is keeping his promise? Whether that pasting over was to be effectual or not would depend upon the consistency of the paste or glue, or perhaps the humidity of the atmosphere or any other accident. That there was no intention to perform his promise, I am satisfied of, and that there has been no performance of his promise I think is clear.

Upon the general case, therefore, I think the Plaintiff is entitled not only to the Injunction in the terms of the Interlocutory Order, but upon those more extensive terms which the Plaintiff asks, by his claim, should be applied to the Defendant's infringement of his rights.

Then there is another subject which is so intimately connected with that that I desired to hear them both together, and I am very glad I did, because, as Mr. Giffard has just told me, that is the main question in dispute between the parties. For the Injunction the Defendant does not seem to care much, though he has violated it, in my opinion, plainly; but he says the question is whether there is a title to register this Trade Mark for which the Defendant proposes to apply. Now that depends upon the words of the Act of Parliament which have been used, the more important of which are "so resembling as to be calculated to deceive." That is a question not to be decided by eyesight; I am invited to lay these two devices side by side, and, since they are not identical and since there are

great differences in their external appearance, to decide that they are not calculated to deceive. To that word DECEIVE I have no right to criticise or quarrel with; it is used in the Act of Parliament, and if I were to give one sense to it, it is plainly in my judgment calculated by the Defendant, meant and intended by him, to deceive any person who is not vigilant enough either in eye or in ear to detect at once the difference between Vinous and Eno's, and the difference between Fruit Salt and any other salt, Eno's title being plainly upon his Trade Mark, Eno's Fruit Salt.

It is not, as I have said, by sight; it is not by the use of a microscope; it is by any other means of detecting more or less of resemblance that you can decide a question which the statute contemplates by using the words that I have referred to. But it is whether the Registrar, whose office it is to register, is satisfied before he performs his function by registering the mark, that the applicant's mark does so resemble as to be calculated to deceive. Can any living man doubt that it is not only calculated—that is intended—but that it is also calculated—that is to say, meant and contrived for the purpose of deceiving—else why does he do it? The world is wide, as has been said in the Judgment referred to, and all things in the animate and inanimate world are open to the Defendant to make a device which shall distinguish his goods from those of any other person. But the Plaintiff having appropriated to himself, and enjoyed for years a device in which the principal characteristic consists of a bunch of grapes, with a Latin motto, and the specific description which relates to Eno's Fruit Salt, the Defendant proposes to register a design in which the principal device is the stem of a vine with a bunch of grapes and some leaves, and a Latin motto around it, and it is to be called "Vinous Salt." If there was nothing in the case but the contrast of these two things, it might, perhaps, to some persons, who trusted only to their eyes, be said there was no resemblance between them, or no sufficient resemblance; but the Registrar is bound to take the whole case into his consideration; he is bound to base his decision on any more similarity or dissimilarity. That is not the way that the Court of Appeal, in the latest case that was before it—the Sheffield case—dealt with the question. The Defendant there had as good a right as anybody in the world could have to stamp his own crest or coat of arms, or anything else, upon his commodities. Nobody could dispute it, and nobody, putting the two things together, could say they were so much alike as to deceive. Mr. Hemming insisted that the stamping, being made on a hard metal, was likely to be blurred, and the persons to be deceived. I have a very clear recollection of that case, and I say it would be impossible for a man with eyes, or with one eye, in his head to mistake the device in that case for the device which the Plaintiff desired there to use.

Mr. HEMMING:—Your Lordship will pardon me, I was only quoting the Master of the Rolls.

The VICE-CHANCELLOR:—I know, and have also clearly in my mind what the Master of the Rolls said and what he did not only in the "Dog and Porridge Pot" case, but in that case. The Master of the Rolls' judgment takes a wide and comprehensive view of the subject. He refers to the statute only for the purpose of verifying and corroborating that view, but what he said was "an honest man who wants to mark his goods never thinks of taking the device partly or wholly which some other tradesman is employing for the purpose of marking his goods," and that I take to be the true principle of the case.

And, taking all these things together, the Plaintiff's evidence in the first place, the total absence of evidence or statement on the part of the Defendant, excepting the ingenious and elaborate statements which Counsel have addressed to me, there being no statement whatever by him at any time except that he admitted he had done wrong in using the word "Fruit," I am asked to say that there is no such resemblance between those two devices as, between those two men, are calculated to mislead in reference to the commodities tendered in the shape in which they are sent into the world. I think I should be wasting time if I observed further upon it. It is to me clearly manifest not only that there is sufficient resemblance to answer the strictest words of the statute, but that there is a resemblance which has been carefully and intentionally calculated to deceive. And as the Defendant will not pledge his oath to a contrary intention, I cannot come to a contrary conclusion than that the injunction ought to go in the terms in which the bill prays for it, extending it therefore beyond the Injunctions granted on the Interlocutory Order and upon the motion, to say that the Defendant is not entitled to register the device of a branch of a vine with a bunch of grapes upon it, and a Latin motto on it and the name "Vinous Salt." There is an end of it therefore.

Sir HENRY JACKSON:—Well, my Lord, of course I must have the costs.

The VICE-CHANCELLOR:—You must have the costs of both.

Sir HENRY JACKSON:—And I think I must ask for the Shorthand Notes of the evidence yesterday. That your Lordship has given on occasions. It was impossible for us to avoid incurring that expense, although it has proved to be absolutely useless. Your Lordship has given it on several occasions, and I must ask your Lordship for the costs of taking the evidence.

Mr. HEMMING:—I do not think your Lordship is ever in the habit of giving costs of that kind, unless there is some special reason for taking the notes. I do not know whether my friend anticipates an appeal upon that evidence, I am sure he will not say so, and I do not think the Court is in the habit of allowing the costs of a shorthand note of the evidence under such circumstances. It is not taken by arrangement. It is not in every case where there is an arrangement between the two sides, and even when there is an arrangement, it is not in every case that the Court allows these costs. I ask your Lordship not to say anything about them unless a general rule is laid down that in every case either party may require a shorthand writer to be employed. We know that the rule is the other way.

The VICE-CHANCELLOR:—So far from laying down any rule, my notion of this particular subject of the costs incurred by the shorthand writer is that it ought not to be done without a good and sufficient reason for it. Now the reason is to me perfectly apparent and conclusive. Sir Henry Jackson proposed to treat the evidence as it had been used in the Court of Appeal, as being put in here. Mr. Hemming objected to that, and insisted upon the witnesses being examined. In my opinion, it became indispensably necessary that a record of that evidence should be kept, and that could only be done according to the present practice of this Court by the employment of a shorthand writer. Mr. Hemming therefore drew down upon his own head the necessity for the employment of a shorthand writer, and having done it without reason as I thought, and having done it without effect as I have decided, in my opinion, the costs ought to be included in those costs which the Defendant is bound to pay to the Plaintiff.

Mr. HEMMING:—That does not mean any transcript—there has been no transcript taken.

Sir HENRY JACKSON:—I have the transcript here, and I was prepared to sum up this morning.

Mr. HEMMING:—There was no occasion for it.

Sir HENRY JACKSON:—I do not want of course the costs of any of the speeches: I merely take the transcript of the shorthand notes of the evidence.

The VICE-CHANCELLOR:—I think that must be so, because for anything I know this case week the Lords Justice will have them in their hands.

Mr. HEMMING:—Then would be time to ask for it.

Sir HENRY JACKSON:—My Lord has decided.



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